Christoph Treude, PhD

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Research Interests

Empirical Software Engineering, Natural Language Processing, Computer Supported Collaborative Work, Human Computer Interaction, Computer Security, Software Documentation, Social Media

Experience

Since 2021: Senior Lecturer, *University of Melbourne, Australia*

2018 – 2020: ARC DECRA Fellow, *University of Adelaide, Australia*

2016 – 2021: Senior Lecturer, *University of Adelaide, Australia*

2015: Researcher, *Universidade de São Paulo, Brazil*

2014 – 2015: Researcher, *Universidade Federal do Rio Grande do Norte, Brazil*

2012 – 2014: Postdoctoral Researcher, *McGill University, Canada*
Supervisor: Dr. Martin Robillard

2007 – 2012: PhD in Computer Science, *University of Victoria, Canada*
Supervisors: Dr. Margaret-Anne Storey and Dr. Jens Weber

Education

2007 – 2012: PhD in Computer Science, *University of Victoria, Canada*

2005 – 2006: Exchange student, *University of British Columbia, Canada*

2000 – 2007: *Diplom* in Computer Science/Management Information Systems, *Universität Siegen, Germany*

Publications

2022

N. Shimada, T. Xiao, H. Hata, **C. Treude**, K. Matsumoto. GitHub Sponsors: Exploring a New Way to Contribute to Open Source. In *ICSE '22: Proceedings of the 44th International Conference on Software Engineering*, 2022. To appear.

N. Zhang, C. Liu, X. Xia, **C. Treude**, Y. Zou, D. Lo, and Z. Zheng. ShellFusion: Answer Generation for Shell Programming Tasks via Knowledge Fusion. In *ICSE '22: Proceedings of the 44th International Conference on Software Engineering*, 2022. To appear.

Y. Jiang, X. Su, **C. Treude**, and T. Wang. Hierarchical Semantic-Aware Neural Code Representation. In *Journal of Systems and Software*, 2022. To appear.

T. Wong, M. Wagner, and **C. Treude**. Self-Adaptive Systems: A Systematic Literature Review Across Categories and Domains. In *Information and Software Technology*, 2022. To appear.

A. Galappaththi, S. Nadi, and **C. Treude**. Does This Apply to Me? An Empirical Study of Technical Context in Stack Overflow. In *MSR '22: Proceedings of the 19th International Conference on Mining Software Repositories*, 2022. To appear.
(Acceptance rate: 34%)

R. Garcia, C.-J. T. Liao, A. Pearce, and **C. Treude**. Gender Influence on Communication Initiated within Student Teams. In *SIGCSE '22: Proceedings of the 53rd Technical Symposium on Computer Science Education*, 2022. To appear.

M. Fernandes, S. Ferino, A. K. Fernandes, U. Kulesza, E. Aranha, and **C. Treude**. DevOps Education: An Interview Study of Challenges and Recommendations. In *ICSE '22: Proceedings of the 44th International Conference on Software Engineering – SEET track*, 2022. To appear.

J. Caddy, M. Wagner, **C. Treude**, E. Barr, M. Allamanis. Is Surprisal in Issue Trackers Actionable? In *MSR '22: Proceedings of the 19th International Conference on Mining Software Repositories – RR track*, 2022. To appear.

B. Reid, M. Wagner, M. d'Amorim, and **C. Treude**. Software Engineering User Study Recruitment on Prolific: An Experience Report. In *RoPES '22: Proceedings of the 1st International Workshop on Recruiting Participants for Empirical Software Engineering*, 2022. To appear.

F. Ebert, A. Serebrenik, **C. Treude**, N. Novielli, and F. Castor. On Recruiting Experienced GitHub Contributors for Interviews and Surveys on Prolific. In *RoPES '22: Proceedings of the 1st International Workshop on Recruiting Participants for Empirical Software Engineering*, 2022. To appear.

2021

M. Aniche, **C. Treude**, and A. Zaidman. How Developers Engineer Test Cases: An Observational Study. In *IEEE Transactions on Software Engineering*, 2021. To appear.

M. Liu, X. Peng, A. Marcus, S. Xing, **C. Treude**, and C. Zhao. API-Related Developer Information Needs in Stack Overflow. In *IEEE Transactions on Software Engineering*, 2021. To appear.

K. Cao, C. Chen, S. Baltes, **C. Treude**, and X. Chen. Automated Query Reformulation for Efficient Search Based on Query Logs from Stack Overflow. In *ICSE '21: Proceedings of the 43rd International Conference on Software Engineering*, 2021. To appear.
(ACM SIGSOFT Distinguished Paper)

H. Hata, R. Kula, T. Ishio, and **C. Treude**. Same File, Different Changes: The Potential of Meta-Maintenance on GitHub. In *ICSE '21: Proceedings of the 43rd International Conference on Software Engineering*, 2021. To appear.

M. Gerosa, I. Wiese, B. Trinkenreich, G. Link, G. Robles, **C. Treude**, I. Steinmacher, and A. Sarma. The Shifting Sands of Motivation: Revisiting What Drives Contributors in Open Source. In *ICSE '21: Proceedings of the 43rd International Conference on Software Engineering*, 2021. To appear.

M. Liu, X. Peng, A. Marcus, **C. Treude**, X. Bai, G. Lyu, J. Xie, and X. Zhang. Learning-based Extraction of First-Order Logic Representations of API Directives. In *ESEC/FSE '21: Proceedings of the Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering*, 2021. To appear.
(Acceptance rate: 24%)

J. Liu, S. Baltes, **C. Treude**, D. Lo, Y. Zhang, and X. Xia. Characterizing Search Activities on Stack Overflow. In *ESEC/FSE '21: Proceedings of the Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering*, 2021. To appear.
(Acceptance rate: 24%)

H. Hata, N. Novielli, S. Baltes, R. Kula, and **C. Treude**. GitHub Discussions: An Exploratory Study of Early Adoption. In *Empirical Software Engineering*, 2021. To appear.

R. Croft, Y. Xie, M. Zahedi, M. A. Babar, and **C. Treude**. An Empirical Study of Developers' Discussions about Security Challenges of Different Programming Languages. In *Empirical Software Engineering*, 2021. To appear.

S. Herbold, A. Trautsch, B. Ledel, A. Aghamohammadi, T. A. Ghaleb, K. Kaur Chahal, T. Bossenmaier, B. Nagaria, P. Makedonski, M. N. Ahmadabadi, K. Szabados, H. Spieker, M. Madeja, N. G. Hoy, V. Lenarduzzi, S. Wang, G. Rodríguez-Pérez, R. Colomo-Palacios, R. Verdecchia, P. Singh, Y. Qin, D. Chakroborti, W. Davis, V. Walunj, H. Wu, D. Marcilio, O. Alam, A. Aldaeej, I. Amit, B. Turhan, S. Eismann, A. Wickert, I. Malavolta, M. Sulír, F. Fard, A. Z. Henley, S. Kourtzanidis, E. Tüzün, **C. Treude**, S. M. Shamasbi, I. Pashchenko, M. Wyrich, J. C. Davis, A. Serebrenik, E. Albrecht, E. U. Aktas, D. Strüber, and J. Erbel. A Fine-grained Data Set and Analysis of Tangling in Bug Fixing Commits. In *Empirical Software Engineering*, 2021. To appear.

T. Kinsman, M. Wessel, M. Gerosa, and **C. Treude**. How Do Software Developers Use GitHub Actions to Automate Their Workflows? In *MSR '21: Proceedings of the 18th International Conference on Mining Software Repositories*, 2021. To appear.
(Acceptance rate: 34%)

M. Alghamdi, S. Hayashi, T. Kobayashi, and **C. Treude**. Characterising the Knowledge about Primitive Variables in Java Code Comments. In *MSR '21: Proceedings of the 18th International Conference on Mining Software Repositories*, 2021. To appear.
(Acceptance rate: 34%)

J. M. Florez, O. Chaparro, **C. Treude**, and A. Marcus. Combining Query Reduction and Expansion for Text-Retrieval-Based Bug Localization. In *SANER '21: Proceedings of the 28th International Conference on Software Analysis, Evolution, and Reengineering*, 2021. To appear.

S. Wattanakriengkrai, B. Chinthanet, H. Hata, R. Kula, **C. Treude**, J. Guo, and K. Matsumoto. GitHub Repositories with Links to Academic Papers: Public Access, Traceability, and Evolution. In *Journal of Systems and Software*, 2021. To appear.

L. Furtado, B. Cartaxo, **C. Treude**, and G. Pinto. How Successful Are Open Source Contributions From Countries with Different Levels of Human Development? In *IEEE Software*, 2021. To appear.

R. Kula, **C. Treude**, H. Hata, S. Baltes, I. Steinmacher, M. A. Gerosa, and W. Kula Amini. Challenges for Inclusion in Software Engineering: The Case of the Emerging Papua New Guinean Society. In *IEEE Software*, 2021. To appear.

R. Rebouças de Almeida, R. do Nascimento Ribeiro, **C. Treude**, and U. Kulesza. Business-Driven Technical Debt Prioritization: An Industrial Case Study. In *TechDebt '21: Proceedings of the 4th International Conference on Technical Debt*, 2021. To appear.
(Best Paper)

S. Islam, R. Kula, **C. Treude**, T. Ishio, and K. Matsumoto. Contrasting Third-Party Package Management User Experience. In *ICSME '21: Proceedings of the 37th International Conference on Software Maintenance and Evolution - NIER track*, 2021. To appear.

S. Ferino, M. Fernandes, A. K. Fernandes, U. Kulesza, E. Aranha, and **C. Treude**. Analyzing DevOps Teaching Strategies: An Initial Study. In *SBES '21: Proceedings of the 35th Brazilian Symposium on Software Engineering - IIER track*, 2021. To appear.
(Distinguished Paper)

S. A. Licorish, **C. Treude**, J. Grundy, K. Blincoe, S. MacDonell, C. Tantithamthavorn, L. Li, and J.-G. Schneider. Software Engineering in Australasia. In *SIGSOFT Software Engineering Notes 46, 2*, pages 16-17, 2021.

2020

S. Baltes, **C. Treude**, and M. P. Robillard. Contextual Documentation Referencing on Stack Overflow. In *IEEE Transactions on Software Engineering*, 2020. To appear.

P.-P. Pârțachi, S. Dash, **C. Treude**, and E. T. Barr. Posit: Simultaneously Tagging Natural and Programming Languages. In *ICSE '20: Proceedings of the 42nd International Conference on Software Engineering*, 2020. To appear.

W. Xie, X. Peng, M. Liu, **C. Treude**, Z. Xing, X. Zhang, and W. Zhao. API Method Recommendation via Explicit Matching of Functionality Verb Phrases. In *ESEC/FSE '20: Proceedings of the Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering*, 2020. To appear.
(Acceptance rate: 28%)

J. Silva, I. Wiese, D. M. German, **C. Treude**, M. A. Gerosa, and I. Steinmacher. A Theory of the Engagement in Open Source Projects via Summer of Code Programs. In *ESEC/FSE '20: Proceedings of the Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering*, 2020. To appear.
(Acceptance rate: 28%)

E. L. Vargas, M. Aniche, **C. Treude**, M. Bruntink, and G. Gousios. Selecting third-party libraries: The practitioners' perspective. In *ESEC/FSE '20: Proceedings of the Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering*, 2020. To appear.
(Acceptance rate: 28%)

Y. Liu, M. Liu, X. Peng, **C. Treude**, Z. Xing, and X. Zhang. Generating Concept based API Element Comparison Using a Knowledge Graph. In *ASE '20: Proceedings of the 35th International Conference on Automated Software Engineering*, 2020. To appear.
(Acceptance rate 22%)

M. P. Robillard and **C. Treude**. Understanding Wikipedia as a Resource for Opportunistic Learning of Computing Concepts. In *SIGCSE '20: Proceedings of the 51st Technical Symposium on Computer Science Education*, 2020. To appear.

J. Jiarpakdee, C. Tantithamthavorn, and **C. Treude**. The Impact of Automated Feature Selection Techniques on the Interpretation of Defect Models. In *Empirical Software Engineering*, 2020. To appear.

R. Maipradit, **C. Treude**, H. Hata, and K. Matsumoto. Wait For It: Identifying "On-Hold" Self-Admitted Technical Debt. In *Empirical Software Engineering*, 2020. To appear.

G. Pinto, B. Miranda, S. Dissanayake, M. d'Amorim, **C. Treude**, and A. Bertolino. What is the Vocabulary of Flaky Tests? In *MSR '20: Proceedings of the 17th International Conference on Mining Software Repositories*, 2020. To appear.

M. Alghamdi, **C. Treude**, and M. Wagner. Human-Like Summaries from Heterogeneous and Time-Windowed Software Development Artefacts. In *PPSN '20: Proceedings of the 16th International Conference on Parallel Problem Solving from Nature*, 2020. To appear.

J. O. Silva, I. Wiese, D. M. German, **C. Treude**, M. A. Gerosa, and I. Steinmacher. Google Summer of Code: Student Motivations and Contributions. In *Journal of Systems and Software*, 2020. To appear.

S. Nadi and **C. Treude**. Essential Sentences for Navigating Stack Overflow Answers. In *SANER '20: Proceedings of the 27th International Conference on Software Analysis, Evolution, and Reengineering*, 2020. To appear.

C. Treude, J. Middleton, and T. Atapattu. Beyond Accuracy: Assessing Software Documentation Quality. In *ESEC/FSE '20: Proceedings of the Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering, Visions and Reflections*, 2020. To appear.
(Acceptance rate: 38%)

S. Baltes and **C. Treude**. Code Duplication on Stack Overflow. In *ICSE '20: Proceedings of the 42nd International Conference on Software Engineering, NIER track*, 2020. To appear.
(Acceptance rate 30%)

I. Nunes, **C. Treude**, and F. Calefato. The Impact of Dynamics of Collaborative Software Engineering on Introverts: A Study Protocol. In *MSR '20: Proceedings of the 17th International Conference on Mining Software Repositories*, 2020. To appear.

L. F. Dias, C. Barbosa, G. Pinto, I. Steinmacher, B. Fonseca, M. Ribeiro, **C. Treude**, and D. A. da Costa. Refactoring from 9 to 5? What and When Employees and Volunteers Contribute to OSS. In *VL/HCC '20: Proceedings of the Symposium on Visual Languages and Human-Centric Computing*, 2020. To appear.

B. Reid, **C. Treude**, and M. Wagner. Optimising the Fit of Stack Overflow Code Snippets into Existing Code. In *GI@GECCO '20: Proceedings of the 9th International Workshop on Genetic Improvement*, 2020. To appear.

M. Herath, T. Atapattu, H. A. Dung, **C. Treude**, and K. Falkner. AdelaideCyC at SemEval-2020 Task 12: Ensemble of Classifiers for Offensive Language Detection in Social Media. In *SemEval@COLING '20: Proceedings of the 14th International Workshop on Semantic Evaluation*, 2020. To appear.

2019

H. Hata, **C. Treude**, R. G. Kula, and T. Ishio. 9.6 Million Links in Source Code Comments: Purpose, Evolution, and Decay. In *ICSE '19: Proceedings of the 41st International Conference on Software Engineering*, 2019. To appear.
(Acceptance rate 21%)

E. Thiselton and **C. Treude**. Enhancing Python Compiler Error Messages via Stack Overflow. In *ESEM '19: 12th International Symposium on Empirical Software Engineering and Measurement*, 2019. To appear.
(Best paper; acceptance rate 20%)

Z. Liu, X. Xia, **C. Treude**, D. Lo, and S. Li. Automatic Generation of Pull Request Descriptions. In *ASE '19: Proceedings of the 34th International Conference on Automated Software Engineering*, 2019. To appear.
(ACM SIGSOFT Distinguished Paper; acceptance rate 23%)

A. Sulistya, G. A. A. Prana, A. Sharma, D. Lo, and **C. Treude**. SIEVE: Helping Developers Sift Wheat from Chaff via Cross-Platform Analysis. In *Empirical Software Engineering*, 2019. To appear.

C. S. Yu, **C. Treude**, and M. Aniche. Comprehending Test Code: An Empirical Study. In *ICSME '19: Proceedings of the 35th International Conference on Software Maintenance and Evolution*, 2019. To appear.
(Acceptance rate 23%)

C. Treude and M. Wagner. Predicting Good Configurations for GitHub and Stack Overflow Topic Models. In *MSR '19: Proceedings of the 16th International Conference on Mining Software Repositories*, 2019. To appear.
(Acceptance rate 25%)

A. Alqaimi, P. Thongtanunam, and **C. Treude**. Automatically Generating Documentation for Lambda Expressions in Java. In *MSR '19: Proceedings of the 16th International Conference on Mining Software Repositories*, 2019. To appear.
(Acceptance rate 25%)

H. Melo, R. Coelho, and **C. Treude**. Unveiling Exception Handling Guidelines adopted by Java Developers. In *SANER '19: Proceedings of the 26th International Conference on Software Analysis, Evolution, and Reengineering*, 2019. To appear.
(Acceptance rate 27%)

I. S. Wiese, R. T. Kuroda, I. Steinmacher, G. A. Oliva, R. Ré, **C. Treude**, and M. A. Gerosa. Are Pieces of Contextual Information Suitable for Predicting Co-Changes? An Empirical Study. In *Software Quality Journal*, 2019. To appear.

M. Kelly, **C. Treude**, and A. Murray. A Case Study on Automated Fuzz Target Generation for Large Codebases. In *ESEM '19: 12th International Symposium on Empirical Software Engineering and Measurement*, 2019. To appear.
(Acceptance rate 35%)

R. Rebouças de Almeida, **C. Treude**, and U. Kulesza. Tracy: A Business-driven Technical Debt Prioritization Framework. In *ICSME '19: Proceedings of the 35th International Conference on Software Maintenance and Evolution*, 2019. To appear.
(Acceptance rate 56%)

M. Nassif, **C. Treude**, and M. P. Robillard. Witt: Querying Technology Terms based on Automated Classification. In *ICSE '19: Proceedings of the 41st International Conference on Software Engineering*, 2019. To appear.
(Acceptance rate 47%)

S. Baltes, **C. Treude**, and S. Diehl. SOTorrent: Studying the Origin, Evolution, and Usage of Stack Overflow Code Snippets. In *MSR' 19: Proceedings of the 16th International Conference on Mining Software Repositories*, 2019. To appear.
(Acceptance rate 33%)

M. Galster, **C. Treude**, and K. Blincoe. Supporting Software Architecture Maintenance by Providing Task-specific Recommendations. In *ICSME '19: Proceedings of the 35th International Conference on Software Maintenance and Evolution*, 2019. To appear.

M. Alghamdi, **C. Treude**, and M. Wagner. Toward Human-Like Summaries Generated from Heterogeneous Software Artefacts. In *GI@GECCO '19: Proceedings of the 7th International Workshop on Genetic Improvement*, 2019. To appear.

C. Treude and F. Figueira Filho. How Team Awareness Influences Perceptions of Developer Productivity. In *Rethinking Productivity in Software Engineering, C. Sadowski and T. Zimmermann, Eds.*, 2019. To appear.

M.-A. Storey and **C. Treude**. Software Engineering Dashboards: Types, Risks, and Future. In *Rethinking Productivity in Software Engineering, C. Sadowski and T. Zimmermann, Eds.*, 2019. To appear.

2018

M. Nassif, **C. Treude**, and M. P. Robillard. Automatically Categorizing Software Technologies. In *IEEE Transactions on Software Engineering*, 2018. To appear.

G. A. A. Prana, **C. Treude**, F. Thung, T. Atapattu, and D. Lo. Categorizing the Content of GitHub README Files. In *Empirical Software Engineering*, 2018. To appear.

D. A. da Costa, S. McIntosh, **C. Treude**, U. Kulesza, and A. E. Hassan. The Impact of Rapid Release Cycles on the Integration Delay of Fixed Issues. In *Empirical Software Engineering 23, 2 (April 2018)*, pages 835-904, 2018.

C. Treude, L. Leite, and M. Aniche. Unusual Events in GitHub Repositories. In *Journal of Systems and Software*, 142 (August 2018), pages 237-247, 2018.

M. Aniche, **C. Treude**, I. Steinmacher, I. Wiese, G. H. L. Pinto, M.-A. Storey, and M. A. Gerosa. How Modern News Aggregators Help Development Communities Shape and Share Knowledge. In *ICSE '18: Proceedings of the 40th International Conference on Software Engineering*, 2018. To appear.
(Acceptance rate 21%)

J. Jiarpakdee, C. Tantithamthavorn, and **C. Treude**. AutoSpearman: Automatically Mitigating Correlated Software Metrics for Interpreting Defect Models. In *ICSME '18: Proceedings of the 34th International Conference on Software Maintenance and Evolution*, 2018. To appear.
(Acceptance rate 26%)

S. Baltes, L. Dumani, **C. Treude**, and S. Diehl. SOTorrent: Reconstructing and Analyzing the Evolution of Stack Overflow Posts. In *MSR '18: Proceedings of the 15th International Conference on Mining Software Repositories*, 2018. To appear.
(Acceptance rate 33%)

R. Rebouças de Almeida, U. Kulesza, **C. Treude**, A. Lima, and D. C. Feitosa. Aligning Technical Debt Prioritization with Business Objectives: A Multiple-case Study. In *ICSME '18: Proceedings of the 34th International Conference on Software Maintenance and Evolution, Industry track*, 2018. To appear.
(Acceptance rate 47%)

I. Steinmacher, **C. Treude**, and M. A. Gerosa. Let me in: Guidelines for the Successful Onboarding of Newcomers to Open Source Projects. In *IEEE Software*, 2018. To appear.

M. Zahedi, M. Ali Babar, and **C. Treude**. An Empirical Study of Security Issues Posted in Open Source Projects. In *HICSS '18: Proceedings of the 51st Hawaii International Conference on System Sciences*, pages 5504-5513, 2018.
(Nominated for Best Paper)

C. Treude and M. Aniche. Where does Google find API documentation? In *WAPI' 18: Proceedings of the 2nd International Workshop on API Usage and Evolution*, 2018. To appear.

2017

M. Aniche, G. Bavota, **C. Treude**, M. A. Gerosa, and A. van Deursen. Code Smells for Model-View-Controller Architectures. In *Empirical Software Engineering*, 2017. To appear.

R. Coelho, L. Almeida, G. Gousios, A. van Deursen, and **C. Treude**. Exception Handling Bug Hazards in Android: Results from a Mining Study and an Exploratory Survey. In *Empirical Software Engineering 22, 3*, pages 1264-1304, 2017.

I. S. Wiese, R. Ré, I. Steinmacher, R. T. Kuroda, G. Oliva, **C. Treude**, and M. A. Gerosa. Using contextual information to predict co-changes. In *Journal of Systems and Software 128 (June 2017)*, pages 220-235, 2017.

F. N. A. Al Omran and **C. Treude**. Choosing an NLP Library for Analyzing Software Documentation: A Systematic Literature Review and a Series of Experiments. In *MSR '17: Proceedings of the 14th International Conference on Mining Software Repositories*, pages 187-197, 2017.
(Acceptance rate 31%)

C. Treude and M. P. Robillard. Understanding Stack Overflow Code Fragments. In *ICSME '17: Proceedings of the 33rd International Conference on Software Maintenance and Evolution*, pages 509-513, 2017.
(Acceptance rate 58%)

M. P. Robillard, A. Marcus, **C. Treude**, G. Bavota, O. Chaparro, N. Ernst, M. A. Gerosa, M. Godfrey, M. Lanza, M. Linares-Vásquez, G. Murphy, L. Moreno, D. Shepherd, and E. Wong. On-Demand Developer Documentation. In *ICSME '17: Proceedings of the 33rd International Conference on Software Maintenance and Evolution*, pages 479-483, 2017.
(Acceptance rate 58%)

B. A. Campbell and **C. Treude**. NLP2Code: Code Snippet Content Assist via Natural Language Tasks. In *ICSME '17: Proceedings of the 33rd International Conference on Software Maintenance and Evolution*, pages 628-632, 2017.
(Acceptance rate 50%)

F. Steffens, S. Marczak, F. Figueira Filho, **C. Treude**, and C. de Souza. A Preliminary Evaluation of a Gamification Framework to Jump Start Collaboration Behavior Change. In *CHASE '17: Proceedings of the 10th International Workshop on Cooperative and Human Aspects of Software Engineering*, pages 90-91, 2017.

L. Silva, F. Pinto, U. Kulesza, and C. Treude. PerfMiner Visualizer: uma ferramenta para análise da evolução do atributo de qualidade de desempenho em sistemas de software. In *SBES '17: Proceedings of the 31st Brazilian Symposium on Software Engineering*, 2017. To appear.

2016

C. Treude and M. P. Robillard. Augmenting API Documentation with Insights from Stack Overflow. In *ICSE '16: Proceedings of the 38th International Conference on Software Engineering*, pages 392-403, 2016.
(Acceptance rate 19%)

I. Steinmacher, T. U. Conte, **C. Treude**, and M. A. Gerosa. Overcoming Open Source Project Entry Barriers with a Portal for Newcomers. In *ICSE '16: Proceedings of the 38th International Conference on Software Engineering*, pages 273-284, 2016.
(Acceptance rate 19%)

C. de Souza, F. Figueira Filho, M. Miranda, R. Ferreira, **C. Treude**, and L. Singer. The Social Side of Software Platform Ecosystems. In *CHI '16: Proceedings of the 34th Annual ACM Conference on Human Factors in Computing Systems*, 2016, pages 3204-3214.
(Acceptance rate 23%)

M. Aniche, G. Bavota, **C. Treude**, A. van Deursen, and M. A. Gerosa. A Validated Set of Smells in Model-View-Controller Architectures. In *ICSME '16: Proceedings of the 32nd International Conference on Software Maintenance and Evolution*, pages 233-243, 2016
(Acceptance rate 29%)

I. S. Wiese, I. Steinmacher, **C. Treude**, J. T. Da Silva, and M. A. Gerosa. Who is who in the mailing list? Comparing six disambiguation heuristics to identify multiple addresses of a participant. In *ICSME '16: Proceedings of the 32nd International Conference on Software Maintenance and Evolution*, pages 345-355, 2016.
(Acceptance rate 29%)

M. Aniche, **C. Treude**, A. Zaidman, A. van Deursen, and M. A. Gerosa. SATT: Tailoring Code Metric Thresholds for Different Software Architectures. In *SCAM '16: Proceedings of the 16th International Working Conference on Source Code Analysis and Manipulation*, pages 41-50, 2016.
(Acceptance rate 38%)

M. Aniche, M. A. Gerosa, and **C. Treude**. Developers' Perceptions on Object-Oriented Design and Architectural Roles. In *SBES '16: Proceedings of the 30th Brazilian Symposium on Software Engineering*, pages 63-72, 2016.

2015

C. Treude, M. P. Robillard, and B. Dagenais. Extracting Development Tasks to Navigate Software Documentation. In *IEEE Transactions on Software Engineering 41, 6 (June 2015)*, pages 565-581, 2015.

C. Treude, F. Figueira Filho, and U. Kulesza. Summarizing and Measuring Development Activity. In *ESEC/FSE '15: Proceedings of the European Software Engineering Conference and the ACM SIGSOFT Symposium on the Foundations of Software Engineering*, pages 625-636, 2015.
(Acceptance rate 25%)

F. Figueira Filho, M. G. Perin, **C. Treude**, S. Marczak, L. Melo, I. Marques da Silva, and L. Bibiano dos Santos. A study on the geographical distribution of Brazil's prestigious software developers. In *Journal of Internet Services and Applications 6, 17 (June 2015)*, pages 1-12, 2015.

F. Pinto, U. Kulesza, and **C. Treude**. Automating the Performance Deviation Analysis for Multiple System Releases: an Evolutionary Study. In *SCAM '15: Proceedings of the 15th International Working Conference on Source Code Analysis and Manipulation*, pages 201-210, 2015.
(Acceptance rate 35%)

R. Ferreira, M. Miranda, F. Figueira Filho, C. de Souza, **C. Treude**, and L. Singer. Os Aspectos Sociais dos Ecossistemas de Software. In *SBSC '15: Proceedings of the Brazilian Symposium in Collaborative Systems*, pages 9-16, 2015.
(Best Paper)

F. Steffens, S. Marczak, F. Figueira Filho, **C. Treude**, L. Singer, D. Redmiles, and B. Al-Ani. Using Gamification as a Collaboration Motivator for Software Development Teams: A Preliminary Framework. In *SBSC '15: Proceedings of the Brazilian Symposium in Collaborative Systems*, pages 48-55, 2015.

J. Lima, **C. Treude**, F. Figueira Filho, and U. Kulesza. Assessing Developer Contribution with Repository Mining-based Metrics. In *ICSME '15: Proceedings of the 31st International Conference on Software Maintenance and Evolution*, pages 536-540, 2015.
(Acceptance rate 35%)

L. Leite, **C. Treude**, and F. Figueira Filho. UEDashboard: Awareness of Unusual Events in Commit Histories. In *ESEC/FSE '15: Proceedings of the European Software Engineering Conference and the ACM SIGSOFT Symposium on the Foundations of Software Engineering*, pages 978-981, 2015.

C. Treude, C. Prolo, and F. Figueira Filho. Challenges in Analyzing Software Documentation in Portuguese. In *SBES '15: Proceedings of the 29th Brazilian Symposium on Software Engineering*, pages 179-184, 2015.

C. Treude, M. Sicard, M. Klocke, and M. P. Robillard. TaskNav: Task-based Navigation of Software Documentation. In *ICSE '15: Proceedings of the 37th International Conference on Software Engineering*, pages 649-652, 2015.
(Acceptance rate 60%)

S. Marczak, F. Figueira Filho, L. Singer, **C. Treude**, F. Steffens, D. Redmiles, and B. Al-Ani. Studying Gamification as a Collaboration Motivator for Virtual Software Teams: Social Issues, Cultural Issues, and Research Methods. In *Proceedings of the CSCW 2015 workshop on Doing CSCW Research in Latin America: Differences, Opportunities, Challenges, and Lessons Learned*, 2015.

L. Leite, **C. Treude**, and F. Figueira Filho. An Automatic Approach to Detect Unusual Events in Software Repositories. In *ELA-ES '15: Proceedings of the 2nd Latin-American School on Software Engineering*, 2015.

2013

L. Singer, F. Figueira Filho, B. Cleary, **C. Treude**, M.-A. Storey, and K. Schneider. Mutual Assessment in the Social Programmer Ecosystem: An Empirical Investigation of Developer Profile Aggregators. In *CSCW '13: Proceedings of the Conference on Computer Supported Cooperative Work*, pages 103-116, 2013.
(Acceptance rate 36%; nominated for Best Paper)

C. Parnin, **C. Treude**, and M.-A. Storey. Blogging Developer Knowledge: Motivations, Challenges and Future Directions. In *ICPC '13: Proceedings of the 21st International Conference on Program Comprehension*, pages 211-214, 2013.
(Acceptance rate 36%; Most Promising Idea Award)

B. Cleary, M.-A. Storey, C. Gomez, L. Singer, and **C. Treude**. Analyzing the Friendliness of Exchanges in an Online Software Developer Community. In *CHASE '13: Proceedings of 6th International Workshop on Cooperative and Human Aspects of Software Engineering*, pages 159-160, 2013.

B. Cleary, **C. Treude**, F. Figueira Filho, M.-A. Storey, and M. Salois. Improving Tool Support for Software Reverse Engineering in a Security Context. In *Foundations of Augmented Cognition, Lecture Notes in Computer Science, D. D. Schmorrow and C. M. Fidopiastis, Eds.*, pages 113-122, 2013.

O. Barzilay, **C. Treude**, and A. Zagalsky. Facilitating Crowd Sourced Software Engineering via Stack Overflow. In *Finding Source Code on the Web for Remix and Reuse, S. E. Sim and R. Gallardo-Valencia, Eds.*, pages 289-308, 2013.

2012

C. Treude and M.-A. Storey. Work Item Tagging: Communicating Concerns in Collaborative Software Development. In *IEEE Transactions on Software Engineering 38, 1 (January/February 2012)*, pages 19-34, 2012.
(Special Section on Selected Papers from ICSE '09)

C. Treude, P. Gorman, L. Grammel, and M.-A. Storey. WorkItemExplorer: Visualizing Software Development Tasks Using an Interactive Exploration Environment. In *ICSE '12: Proceedings of the 34th International Conference on Software Engineering*, pages 1399-1402, 2012.
(Acceptance rate 31%)

C. Treude, F. Figueira Filho, B. Cleary, and M.-A. Storey. Programming in a Socially Networked World: the Evolution of the Social Programmer. In *FutureCSD '12: Proceedings of the CSCW Workshop on the Future of Collaborative Software Development*, 2012.

C. Treude. The Role of Social Media Artifacts in Collaborative Software Development. *PhD thesis, University of Victoria*, 2012.

C. Parnin, **C. Treude**, L. Grammel, and M.-A. Storey. Crowd Documentation: Exploring the Coverage and the Dynamics of API Discussions on Stack Overflow. *Georgia Tech Technical Report GIT-CS-12-05, Georgia Institute of Technology*, 2012.

2011

C. Treude and M.-A. Storey. Effective Communication of Software Development Knowledge Through Community Portals. In *ESEC/FSE '11: Proceedings of the European Software Engineering Conference and the ACM SIGSOFT Symposium on the Foundations of Software Engineering*, pages 91-101, 2011.
(Acceptance rate 17%)

C. Treude, F. Figueira Filho, M.-A. Storey, and M. Salois. An Exploratory Study of Software Reverse Engineering in a Security Context. In *WCRE '11: Proceedings of the 18th Working Conference on Reverse Engineering*, pages 184-188, 2011.
(Acceptance rate 48%)

C. Treude, O. Barzilay, and M.-A. Storey. How do Programmers Ask and Answer Questions on the Web? (NIER Track). In *ICSE '11: Proceedings of the 33rd ACM/IEEE International Conference on Software Engineering*, pages 804-807, 2011.
(Acceptance rate 23%)

C. Parnin and **C. Treude**. Measuring API Documentation on the Web. In *Web2SE '11: Proceedings of the 2nd International Workshop on Web 2.0 For Software Engineering*, pages 25-30, 2011.

C. Treude, M.-A. Storey, A. van Deursen, A. Begel, and S. Black. Second International Workshop on Web 2.0 for Software Engineering (Web2SE 2011). In *ICSE '11: Proceedings of the 33rd ACM/IEEE International Conference on Software Engineering*, pages 1222-1223, 2011.

C. Treude, M.-A. Storey, A. van Deursen, A. Begel, and S. Black. Workshop Report from Web2SE 2011: 2nd International Workshop on Web 2.0 for Software Engineering. In *SIGSOFT Software Engineering Notes 36, 5 (September 2011)*, pages 24-29, 2011.

2010

C. Treude and M.-A. Storey. Awareness 2.0: Staying Aware of Projects, Developers and Tasks using Dashboards and Feeds. In *ICSE '10: Proceedings of the 32nd ACM/IEEE International Conference on Software Engineering – Volume 1*, pages 365-374, 2010.
(Acceptance rate 14%)

C. Treude and M.-A. Storey. Bridging Lightweight and Heavyweight Task Organization: The Role of Tags in Adopting New Task Categories. In *ICSE '10: Proceedings of the 32nd ACM/IEEE International Conference on Software Engineering – Volume 2*, pages 231-234, 2010.
(Acceptance rate 25%)

G. Bougie, **C. Treude**, D. M. German, and M.-A. Storey. A Comparative Exploration of FreeBSD Bug Lifetimes. In *MSR '10: Proceedings of the 2010 International Working Conference on Mining Software Repositories*, pages 106-109, 2010.

M.-A. Storey, **C. Treude**, A. van Deursen, and L.-T. Cheng. The Impact of Social Media on Software Engineering Practices and Tools. In *FoSER '10: Proceedings of the FSE/SDP workshop on Future of software engineering research*, pages 359-364, 2010.

L. Grammel, H. Schackmann, A. Schröter, **C. Treude** and M.-A. Storey. Attracting the Community's Many Eyes: an Exploration of User Involvement in Issue Tracking. In *HAoSE' 10: Human Aspects of Software Engineering*, Article 3, 2010.

C. Treude and M.-A. Storey. The Implications of How We Tag Software Artifacts: Exploring Different Schemata and Metadata for Tags. In *Web2SE '10: Proceedings of the 1st Workshop on Web 2.0 For Software Engineering*, pages 12-13, 2010.

L. Grammel, **C. Treude**, and M.-A. Storey. Mashups Environments in Software Engineering. In *Web2SE '10: Proceedings of the 1st Workshop on Web 2.0 For Software Engineering*, pages 24-25, 2010.

M.-A. Storey, L. Grammel, and **C. Treude**. Smart Media: Bridging Interactions and Services for the Smart Internet. In *The Smart Internet, Lecture Notes in Computer Science, M. Chignell, J. Cordy, J. Ng, and Y. Yesha, Eds.*, pages 152-169, 2010.

C. Treude. The Role of Emergent Knowledge Structures in Collaborative Software Development. In *ICSE '10: Proceedings of the 32nd ACM/IEEE International Conference on Software Engineering – Volume 2*, pages 389-392, 2010.

C. Treude, M.-A. Storey, K. Ehrlich, and A. van Deursen. Web2SE: First Workshop on Web 2.0 for Software Engineering. In *ICSE '10: Proceedings of the 32nd ACM/IEEE International Conference on Software Engineering – Volume 2*, pages 457-458, 2010.

C. Treude, M.-A. Storey, K. Ehrlich, and A. van Deursen. Workshop report from Web2SE: First workshop on Web 2.0 for Software Engineering. In *SIGSOFT Software Engineering Notes 35, 5 (October 2010)*, pages 45-50, 2010.

2009

C. Treude and M.-A. Storey. How tagging helps bridge the gap between social and technical aspects in software development. In *ICSE '09: Proceedings of the 2009 IEEE 31st International Conference on Software Engineering*, pages 12-22, 2009.
(Acceptance rate 12%; invited to TSE Special Section on Selected Papers from ICSE '09)

C. Treude and M.-A. Storey. ConcernLines: A timeline view of co-occurring concerns. In *ICSE '09: Proceedings of the 2009 IEEE 31st International Conference on Software Engineering*, pages 575-578, 2009.
(Acceptance rate 33%)

L. Grammel, M.-A. Storey, and **C. Treude**. User interfaces for visual analysis and monitoring in business intelligence. In *CASCON '09: Proceedings of the 2009 Conference of the Center for Advanced Studies on Collaborative Research*, pages 323-324, 2009.

C. Treude, M.-A. Storey, and J. Weber. Empirical Studies on Collaboration in Software Development: A Systematic Literature Review. *Technical Report DCS-331-IR, Department of Computer Science, University of Victoria*, 2009.

2007

C. Treude, S. Berlik, S. Wenzel, and U. Kelter. Difference computation of large models. In *ESEC/FSE '07: Proceedings of the 6th Joint Meeting of the European Software Engineering Conference and the ACM SIGSOFT Symposium on the Foundations of Software Engineering*, pages 295-304, 2007.
(Acceptance rate 17%)

C. Treude. Einsatz multidimensionaler Suchstrukturen zur Optimierung der Bestimmung von Dokumentdifferenzen. *Diplom thesis, Universität Siegen*, 2007.
(in German)

Presentations

Keynote Addresses

How Do Social Media Artifacts Support Collaborative Software Development? Empirical Studies from the University of Victoria
September 5, 2011, 4th International Workshop on Social Software Engineering, Szeged, Hungary

Invited Talks

Repacking software artefacts to bridge the gap between documentation authors and readers
April 24, 2018, University of Canterbury, Christchurch, New Zealand

Supporting developers in navigating software documentation
April 20, 2018, Victoria University of Wellington, Wellington, New Zealand

Enabling better access to software documentation
April 19, 2018, University of Auckland, Auckland, New Zealand

Unlocking the information hidden in software repositories with NLP and ML
February 2, 2018, Tokyo Institute of Technology, Tokyo, Japan

Using NLP and ML to unlock information hidden in software repositories
February 2, 2018, Waseda University, Tokyo, Japan

Bridging the gap between software documentation authors and consumers
January 29, 2018, Kyushu University, Fukuoka, Japan

Unlocking information hidden in software repositories
January 17, 2018, Osaka University, Osaka, Japan

Enabling full access to the information in software repositories
December 18, 2017, Nara Institute of Science and Technology, Nara, Japan

Bimodal Software Documentation
October 31, 2017, The 55th CREST Open Workshop - Bimodal Program Analysis, London, United Kingdom

Unlocking the insights hidden in software documentation
October 18, 2017, Monash University, Melbourne, Australia

Using Natural Language Processing to Enhance Software Documentation
July 10, 2017, Harbin Institute of Technology, Harbin, China

Code Snippet Content Assist via Software Development Tasks
July 7, 2017, Harbin Institute of Technology, Harbin, China

Supporting Newcomers to Software Projects
July 6, 2017, Harbin Institute of Technology, Harbin, China

Building Tools to Improve Access to Software Documentation
June 19, 2017, Singapore Management University, Singapore

"Stop trying to do what you're trying to do": Developers' Perceptions of Measuring Productivity
March 6, 2017, Dagstuhl Seminar on Rethinking Productivity in Software Engineering, Dagstuhl, Germany

Searching and summarizing software documentation
February 7, 2017, Northern Arizona University, Flagstaff, AZ, United States

Improving access to software documentation
January 18, 2017, Data61, Sydney, NSW, Australia

Finding and navigating software documentation
June 14, 2016, MapTek, Adelaide, SA, Australia

Making sense of software documentation with natural language processing
April 18, 2016, Hong Kong University of Science and Technology, Hong Kong, China

Using natural language processing to make sense of software documentation
April 4, 2016, Deakin University, Melbourne, Australia

Using NLP to identify meaningful sentences in informal documentation
March 7, 2016, NII Shonan Meeting on Mining & Modeling Unstructured Data in Software – Challenges for the Future, Shonan, Japan

TaskNav: A Search Interface for Software Documentation Using Natural Language Processing
December 3, 2015, Fluminense Federal University, Niterói, RJ, Brazil

Searching Software Documentation with the Help of Natural Language Processing
November 12, 2015, Bluesoft, São Paulo, SP, Brazil

Source code and everything else: Enabling full access to software repositories
October 13, 2015, University of Adelaide, SA, Australia

Using Natural Language Processing to Extract Task Descriptions from Software Documentation
September 17, 2015, Concordia University, Montreal, QC, Canada

Supporting Software Developers by Automatically Extracting Development Task Descriptions
February 27, 2015, Universidade de São Paulo, SP, Brazil

The Role of Social Media Artifacts in Collaborative Software Development
April 9, 2012, University of Massachusetts Amherst, MA, United States

The Role of Social Media Artifacts in Collaborative Software Development
February 27, 2012, The College of William and Mary, Williamsburg, VA, United States

The Role of Social Media Artifacts in Collaborative Software Development
February 25, 2012, Rochester Institute of Technology, Rochester, NY, United States

Awareness 2.0: Staying Aware of Projects, Developers and Tasks using Dashboards and Feeds
September 1, 2010, IBM Research, Hawthorne, NY, United States

Lightweight Collaboration: Tags, Dashboards and Feeds in IBM's Jazz
March 22, 2010, University of California, Irvine, CA, United States

Dashboards in IBM's Jazz: Business Intelligence for Software Development
November 4, 2009, IBM CASCON Workshop on User Interfaces for Visual Analysis and Monitoring in Business Intelligence, Toronto, ON, Canada

Lightweight Collaboration: Tags, Dashboards & Feeds in Jazz
August 20, 2009, McGill University, Montreal, QC, Canada

How Tagging Supports Informal Processes in Software Development
Aug 3, 2009, Department of National Defense, Valcartier, QC, Canada

Tags for Work Items and Dashboards in IBM's Jazz
July 3, 2009, IBM Cognos, Ottawa, ON, Canada

How Tagging Supports Informal Processes in Software Development
June 25, 2009, IBM Research, Hawthorne, NY, United States

How Tagging Supports Informal Processes in Software Development
June 22, 2009, IBM Research, Cambridge, MA, United States

Presentations at Seminars and Meetings

How We Do Research: the Graduate Students' View
November 17, 2011, Graduate Student Seminar, University of Victoria, BC, Canada

Work Item Explorer: Exploring Jazz work items using an interactive visualization
(with Patrick Gorman, Bradley Blashko, Lars Grammel, and Margaret-Anne Storey)
October 31, 2010, Consortium for Software Engineering Research (CSER) Fall Meeting, Toronto, ON, Canada

Awareness 2.0: Staying Aware of Projects, Developers and Tasks using Dashboards and Feeds in Jazz
June 29, 2010, IBM CAS Seminar, IBM Ottawa, ON, Canada

Lightweight Collaboration: Tags, Dashboards & Feeds in Jazz
October 28, 2009, IBM CAS Seminar, IBM Ottawa, ON, Canada

Tagging in Jazz & the Visibility of Collaboration in Software Development
June 4, 2009, IBM CAS Seminar, IBM Ottawa, ON, Canada

Team Work in Software Evolution: A Systematic Literature Review
April 27, 2009, Consortium for Software Engineering Research (CSER) Spring Meeting, Montreal, QC, Canada

How Tagging helps bridge the Gap between Social and Technical Aspects in Software Development
March 27, 2009, Software Engineering Colloquium, University of Victoria, BC, Canada

Research on collaborative software development using IBM's Jazz
October 26, 2008, Consortium for Software Engineering Research (CSER) Fall Meeting, Toronto, ON, Canada

Collaboration through Artifacts
June 12, 2008, IBM CAS Seminar, IBM Ottawa, ON, Canada

Difference Computation of Large Models
November 23, 2007, Software Engineering Colloquium, University of Victoria, BC, Canada

Difference Computation of Large Models
October 4, 2007, IBM CAS Seminar, IBM Ottawa, ON, Canada

Posters and Exhibits

Visualizing software development tasks using multiple coordinated views
(with Patrick Gorman, Lars Grammel, and Margaret-Anne Storey)
November 7-10, 2011, IBM CASCON 2011, Toronto, ON, Canada

Work Item Explorer: Exploring Jazz work items using an interactive visualization
(with Patrick Gorman, Bradley Blashko, Lars Grammel, and Margaret-Anne Storey)
November 1-4, 2010, IBM CASCON 2010, Toronto, ON, Canada

Dashboards in IBM's Jazz: Business Intelligence for Software Development
November 2-5, 2009, IBM CASCON 2009, Toronto, ON, Canada

Dashboards in IBM's Jazz: Business Intelligence for Software Development
November 1, 2009, Consortium for Software Engineering Research (CSER) Fall Meeting, Toronto, ON, Canada

How Tagging Supports Informal Processes in Software Development
May 19, 2009, IBM Jazz Research Reception at the International Conference on Software Engineering (ICSE), Vancouver, BC, Canada

Tag Clouds for Semi-Structured Documents (with Maria-Elena Hernandez and Sean Falconer)
October 27-30, 2008, IBM CASCON 2008, Toronto, ON, Canada

How Tagging Supports Informal Processes in Software Development
October 26, 2008, Consortium for Software Engineering Research (CSER) Fall Meeting, Toronto, ON, Canada

Teaching

Lecturer

COMP SCI 3006NA / 7015NA: Software Engineering & Project *(Undergraduate and graduate course, co-taught with Amali Weerasinghe)*
October 2017 – December 2017, Ngee Ann-Adelaide Education Centre, Singapore

COMP SCI 4404: Software Engineering Research Project *(Honours course)*
July 2017 – October 2017, University of Adelaide, Australia

COMP SCI 7096B: Master of Software Engineering Project Part B *(Masters course, co-taught with Marian Mihailescu)*
July 2017 – October 2017, University of Adelaide, Australia

COMP SCI 4809 / 7409: Search Based Software Engineering *(Honours and Masters course, co-taught with Markus Wagner)*
July 2017 – October 2017, University of Adelaide, Australia

COMP SCI 3006NA / 7015NA: Software Engineering & Project *(Undergraduate and graduate course, co-taught with Claudia Szabo)*
April 2017 – June 2017, Ngee Ann-Adelaide Education Centre, Singapore

COMP SCI 2205: Software Engineering Workshop I *(Undergraduate course, co-taught with M. Ali Babar)*
February 2017 – June 2017, University of Adelaide, Australia

COMP SCI 4405 / 7405: Research Methods in Software Engineering and Computer Science *(Honours and Masters course, co-taught with Nick Falkner)*
February 2017 – June 2017, University of Adelaide, Australia

COMP SCI 7096A: Master of Software Engineering Project Part A *(Masters course)*
February 2017 – June 2017, University of Adelaide, Australia

COMP SCI 4404: Software Engineering Research Project *(Honours course)*
July 2016 – October 2016, University of Adelaide, Australia

COMP SCI 2201 / 7201 SGDE: Small Group Discovery Experience for Algorithm & Data Structure Analysis *(Undergraduate course, co-taught with M. Ali Babar)*
July 2016 – October 2016, University of Adelaide, Australia

COMP SCI 7096B: Master of Software Engineering Project Part B *(Masters course)*
July 2016 – October 2016, University of Adelaide, Australia

COMP SCI 4405 / 7405: Research Methods in Software Engineering and Computer Science *(Honours and Masters course, co-taught with Nick Falkner)*
February 2016 – June 2016, University of Adelaide, Australia

COMP SCI 7036: Software Engineering in Industry *(Masters course, co-taught with Michael Sheng)*
February 2016 – June 2016, University of Adelaide, Australia

Mining Software Repositories *(Undergraduate and graduate course, co-taught with Fernando Figueira Filho and Uirá Kulesza)*
February 2015 – June 2015, Universidade Federal do Rio Grande do Norte, Brazil

Programmierpraktikum *(programming course in Java, taught in German)*
April 2007 – July 2007, Universität Siegen, Germany

Teaching Assistant

SENG 435/CSC 485A/CSC 578A: Computer-Supported Collaborative Work
September 2009 – December 2009, University of Victoria, Canada

SENG 371: Software Evolution
September 2008 – December 2008, University of Victoria, Canada

CSC 105: Computers and Information Processing
September 2007 – December 2007, University of Victoria, Canada

Softwaretechnik I / Datenbanksysteme I *(courses on Software Engineering and Database Systems, taught in German)*
October 2003 – March 2004, Universität Siegen, Germany

Programmierpraktikum *(programming course in Java, taught in German)*
April 2003 – September 2003 and April 2004 – March 2005, Universität Siegen, Germany

Teaching Seminars Taken

EDCI 560: Teaching and Learning in Higher Education
January 2009 – April 2009, University of Victoria, Canada

Supervised Students

PhD

Jirayus Jiarpakdee, Studying the Impact of Experimental Issues on the Interpretation of Defect Prediction Models, *co-supervised with Markus Wagner and Chakkrit Tantithamthavorn, started October 2017, University of Adelaide, Australia*

Mahfouth Ahmad Alghamdi, Summarising Software Engineering Data, *co-supervised with Markus Wagner, started October 2017, University of Adelaide, Australia*

Bakheet Hamdan M Aljedaani, A Knowledge-based Approach to the Development of Secure Software for IoT-based Healthcare, *co-supervised with M. Ali Babar, started September 2016, University of Adelaide, Australia*

Master of Computer Science

Anwar Ibrahim Alqaimi, Automatically generating documentation for lambda expressions in Java, *started February 2018, University of Adelaide, Australia*

Abdulaziz Almoharib, Developing a Bot for Frequently Asked Questions in a Slack channel, *February 2017 – October 2017, University of Adelaide, Australia*

Fouad Nasser A Al Omran, Supporting Newcomers to Software Projects through Natural Language Processing, *July 2016 – June 2017, University of Adelaide, Australia*

Xichao Wang, Augmenting Code Examples with Embedded Explanations, *July 2016 – June 2017, University of Adelaide, Australia*

Alantiel Freire Marins, Summarizing and Measuring Development Activity, *co-supervised with Marco A. Gerosa, started August 2015, Universidade de São Paulo, Brazil*

Honours thesis

Patrick Gorman, Evaluation of WorkItemExplorer through user studies with professional software developers, *co-supervised with Margaret-Anne Storey, September 2011 – December 2011, University of Victoria, Canada*

Larissa Leite, An Automatic Approach to Detect and Notify Development Teams of Unusual Events in Software Repositories, *co-supervised with Fernando Figueira Filho, January 2015 – April 2015, Universidade Federal do Rio Grande do Norte, Brazil*

Undergraduate Research Project

Emillie Thiselton, Synthesising better error messages using Stack Overflow, *started February 2018, Advanced Topics in Computer Science, University of Adelaide, Australia*

Roland Croft, Predicting Security Issues Based on Technology Stacks, *co-supervised with M. Ali Babar, started February 2018, Advanced Topics in Computer Science, University of Adelaide, Australia*

Kieren Chantrell, Challenges of Software Package Installation, *co-supervised with Nick Falkner, started February 2018, Advanced Topics in Computer Science, University of Adelaide, Australia*

Ryan Matulick, Translating natural language text into source code using Stack Overflow data, *co-supervised with Markus Wagner, started February 2018, Advanced Topics in Computer Science, University of Adelaide, Australia*

Hin Tran, Understanding the impact of "magic numbers", *started February 2018, Advanced Topics in Computer Science, University of Adelaide, Australia*

Matthew Kelly, Automated Fuzz Testing, *started February 2018, Advanced Topics in Computer Science, University of Adelaide, Australia*

Francis John Pinaroc, Integrating code snippets from Stack Overflow into existing source code, *July 2017 – October 2017, Advanced Topics in Computer Science, University of Adelaide, Australia*

Roland Croft, Identifying the topics of Stack Overflow discussions, *co-supervised with Thushari Atapattu, July 2017 – October 2017, Topics in Computer Science, University of Adelaide, Australia*

Peter Dinh, Crowd based mobile app security analytics, *co-supervised with M. Ali Babar, July 2017 – October 2017, Topics in Computer Science, University of Adelaide, Australia*

Kevin Dang, Analyzing the adoption of new programming language features, *February 2017 – June 2017, Advanced Topics in Computer Science, University of Adelaide, Australia*

Rung Sung Ip, Automatically generating documentation for lambda expressions in Java, *February 2017 – June 2017, Topics in Computer Science, University of Adelaide, Australia*

Safwan Ull Karim, Developing a Bot for Frequently Asked Questions in a Slack channel, *February 2017 – June 2017, Topics in Computer Science, University of Adelaide, Australia*

Kieren Chantrell, Intrinsic and Extrinsic Factors which Impact Online Software Installation for Developers, *co-supervised with Nick Falkner, February 2017 – June 2017, Topics in Computer Science, University of Adelaide, Australia*

Brock Angus Campbell, Converting Natural Language Text into Source Code Using Stack Overflow Data, *July 2017 – October 2017, Topics in Computer Science, University of Adelaide, Australia*

Francis John Pinaroc, Visualizing Unusual Events in GitHub Repositories, *July 2017 – October 2017, Topics in Computer Science, University of Adelaide, Australia*

Hin Tran, Evaluating Documentation Needs of Open Source Newcomers, *July 2017 – October 2017, Topics in Computer Science, University of Adelaide, Australia*

Michelle Cao, TaskExtractor: A Task Identifying Web Application, *February 2017 – June 2017, Advanced Topics in Computer Science, University of Adelaide, Australia*

Benjamin Morris, Automation of SISE and Effect of Co-Reference Resolution, *February 2017 – June 2017, Topics in Computer Science, University of Adelaide, Australia*

Ben Fisher, Interface and API Design for Documentation Analysis, *co-supervised with Martin Robillard, January 2014 – April 2014, McGill University, Canada*

Undergraduate Software Development

Roland Croft, Predicting Security Issues Based on Technology Stacks, *co-supervised with M. Ali Babar, November 2017 – February 2018, University of Adelaide, Australia*

Louis Carsten Griffith, GitHub summarization with topic modeling, *November 2016 – February 2017, University of Adelaide, Australia*

Marc Klocke, TaskNav: Web Platform for Documentation Analysis, *co-supervised with Martin Robillard, May 2014 – August 2014, McGill University, Canada*

Mathieu Sicard, TaskNav: Web Platform for Documentation Analysis, *co-supervised with Martin Robillard, May 2014 – August 2014, McGill University, Canada*

Mathieu Nassif, Infrastructure for API Documentation Analysis, *co-supervised with Martin Robillard, May 2013 – August 2013 and May 2014 – August 2014, McGill University, Canada*

Joshua Liben, Infrastructure for API Documentation Analysis, *co-supervised with Martin Robillard, May 2013 – August 2013, McGill University, Canada*

Thor Kell, Development of a workflow support prototype for reverse engineers in a security context, *co-supervised with Brendan Cleary and Margaret-Anne Storey, January 2012 – April 2012, University of Victoria, Canada*

Patrick Gorman, Development of WorkItemExplorer, an interactive environment to visually explore issue tracking data, *co-supervised with Lars Grammel and Margaret-Anne Storey, May 2010 – August 2010 and May 2011 – August 2011, University of Victoria, Canada*

Activities

Service to the Community

ICSME 2020: General Co-Chair, with Hongyu Zhang

ICSME: Member of the Steering Committee (since 2020)

Empirical Software Engineering journal: Editorial Board member

IEEE Transactions on Software Engineering: Review Board member

ACM Transactions on Software Engineering and Methodology: Member of Board of Distinguished Reviewers

IEEE Software: Guest Editor "20 Years of Open Source—Impact on Software Engineering Practice"

IEEE Software Blog: Associate Editor (Human Factors)

IWESEP 2018 PC Co-Chair

ICSE 2016: Publicity Team

ICSE 2014: Publicity Chair

UVic SE Colloquium: Co-organizer of Software Engineering Colloquium at University of Victoria, 2007–2009

Workshop Organization

Adelaide Autumn School on Software Engineering 2018
with Markus Wagner

DySDoc 2018: Second International Workshop on Dynamic Software Documentation at McGill University's Bellairs Research Institute
with Martin Robillard and Andrian Marcus

DySDoc 2017: First International Workshop on Dynamic Software Documentation at McGill University's Bellairs Research Institute
with Martin Robillard and Andrian Marcus

SSE 2016: 8th International Workshop on Social Software Engineering at the Symposium on the Foundations of Software Engineering (FSE) 2016
with Fabio Calefato and Andrew Begel

QualiDASE 2015: Bellairs 2015 Workshop on Qualitative Data Analysis in Software Engineering at McGill University's Bellairs Research Institute
with Martin Robillard

ProK 2014: Bellairs 2014 Workshop on Representing Programming Knowledge at McGill University's Bellairs Research Institute
with Martin Robillard

Web2SE 2011: 2nd International Workshop on Web 2.0 for Software Engineering at the International Conference on Software Engineering (ICSE) 2011
with Margaret-Anne Storey, Arie van Deursen, Andrew Begel, and Sue Black

Web2SE 2010: First Workshop on Web 2.0 for Software Engineering at the International Conference on Software Engineering (ICSE) 2010
with Margaret-Anne Storey, Arie van Deursen, and Kate Ehrlich

User Interfaces for Visual Analysis and Monitoring in Business Intelligence at IBM CASCON 2009
with Lars Grammel and Margaret-Anne Storey

Program Committee Memberships

ESEC/FSE 2022: 30th Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering

ICSE 2022: 44th International Conference on Software Engineering

MSR 2022: 19th International Conference on Mining Software Repositories

SANER 2022 RENE: Reproducibility Studies and Negative Results @ SANER 2022

MSR RR 2021: Registered Reports Track @ MSR 2021

ICSME NIER 2021: New Ideas and Emerging Results @ ICSME 2021

ICSE 2020: 42nd International Conference on Software Engineering

ESEC/FSE 2020: 28th Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering

ASE 2020: 35th International Conference on Automated Software Engineering

MSR 2020: 17th International Conference on Mining Software Repositories

MSR RR 2020: Registered Reports Track @ MSR 2020

ICGSE 2020: 15th International Conference on Global Software Engineering

SANER LBI 2020: Late Breaking Ideas track of the 27th International Conference on Software Analysis, Evolution and Reengineering

ICSE 2019: 41st International Conference on Software Engineering

ESEC/FSE 2019: 27th Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering

ICSME 2019: 35th International Conference on Software Maintenance and Evolution

MSR 2019: 16th International Conference on Mining Software Repositories

ASE 2019 Demo: Demo track of the International Conference on Automated Software Engineering

SCAM RENE 2019: Replication and Negative Results track of the 19th International Working Conference on Source Code Analysis and Manipulation

ESEM Industry 2019: Industry track of the International Symposium on Empirical Software Engineering and Measurement

SBES 2019: 33rd Brazilian Symposium on Software Engineering

IWESEP 2019: 10th International Workshop on Empirical Software Engineering in Practice

FSE 2018: ACM SIGSOFT Symposium on the Foundations of Software Engineering

SANER 2018: 25th International Conference on Software Analysis, Evolution and Reengineering

MSR 2018: 15th International Conference on Mining Software Repositories

SBES 2018: 32nd Brazilian Symposium on Software Engineering

CSCW 2018: 21st Conference on Computer-Supported Cooperative Work and Social Computing (External Reviewer)

SCORE 2018: Student Contest on Software Engineering @ ICSE 2018

ICSE 2018 SRC: Student Research Competition of the 40th International Conference on Software Engineering

WAPI 2018: 2nd International Workshop on API Usage and Evolution @ ICSE 2018

SAGRA 2018: 4th Workshop on Sustainable Architecture: Global Collaboration, Requirements, Analysis @ ECSA 2018

ICSE 2017: 39th International Conference on Software Engineering

ICSME 2017: 33rd International Conference on Software Maintenance and Evolution

SANER 2017: 24th International Conference on Software Analysis, Evolution, and Reengineering

ICGSE 2017: 12th International Conference on Global Software Engineering

SCAM 2017: 17th International Working Conference on Source Code Analysis and Manipulation

SBES 2017: 31st Brazilian Symposium on Software Engineering

ICSE 2017 SRC: Student Research Competition of the 39th International Conference on Software Engineering

ICSME NIER 2017: New Ideas track of the 33rd International Conference on Software Maintenance and Evolution

ISEC 2017: 10th India Software Engineering Conference

EAST 2017: 4th International Workshop on Evidential Assessment of Software Technologies

CHI 2017: International Conference of Human-Computer Interaction (External Reviewer, recognized as Excellent Reviewer)

CSCW 2017: 20th Conference on Computer-Supported Cooperative Work and Social Computing (External Reviewer)

SCAM 2016: 16th International Working Conference on Source Code Analysis and Manipulation

MSR 2016: 13th Working Conference on Mining Software Repositories

SBCARS 2016: 10th Brazilian Symposium on Software Components, Architectures, and Reuse

ICGSE 2016: 11th International Conference on Global Software Engineering

ICSME ERA 2016: Early Research Achievements track of the 32nd International Conference on Software Maintenance and Evolution

FSE 2016 Artifacts Track: Artifacts track of the 24th International Symposium on the Foundations of Software Engineering

ICSME 2016 Artifacts Track: Artifacts track of the 32nd International Conference on Software Maintenance and Evolution

SANER ERA 2016: Early Research Achievements track of the 23rd International Conference on Software Analysis, Evolution, and Reengineering

CSI-SE 2016: 3rd International Workshop on CrowdSourcing in Software Engineering @ ICSE 2016

CHASE 2016: 9th International Workshop on Cooperative and Human Aspects of Software Engineering @ ICSE 2016

WASHES 2016: 1st Workshop on Social, Human, and Economic Aspects of Software @ SBQS 2016

SSE 2015: 7th International Workshop on Social Software Engineering @ FSE 2015

OISE 2015: First Workshop of Open Innovation in Software Engineering

STIL 2015: Symposium in Information and Human Language Technology

ICSME ERA 2015: Early Research Achievements track of the 31st International Conference on Software Maintenance and Evolution

SBCARS 2015: 9th Brazilian Symposium on Software Components, Architectures and Reuse @ CBSoft 2015

CHI 2015: International Conference of Human-Computer Interaction (External Reviewer)

CSI-SE 2015: 2nd International Workshop on CrowdSourcing in Software Engineering @ ICSE 2015

CHASE 2015: Cooperative and Human Aspects of Software Engineering @ ICSE 2015

MSR Mining Challenge 2015: Mining Challenge of the 12th Working Conference on Mining Software Repositories

MSR 2015: 12th Working Conference on Mining Software Repositories

SANER ERA 2015: Early Research Achievements track of the 22nd IEEE International Conference on Software Analysis, Evolution, and Reengineering

ICSME 2015: 31st International Conference on Software Maintenance and Evolution

SSE 2014: 6th International Workshop on Social Software Engineering @ FSE 2014

ICSME ERA 2014: Early Research Achievements track of the 30th International Conference on Software Maintenance and Evolution

CSI-SE 2014: Crowdsourcing in Software Engineering @ ICSE 2014

CHASE 2014: Cooperative and Human Aspects of Software Engineering @ ICSE 2014

MSR 2014: 11th Working Conference on Mining Software Repositories

MSR Mining Challenge 2014: Mining Challenge of the 11th Working Conference on Mining Software Repositories

CSMR-WCRE Demo 2014: Tool Demonstrations track of the CSMR-WCRE 2014 Software Evolution Week

CSMR-WCRE ERA 2014: Early Research Achievements track of the CSMR-WCRE 2014 Software Evolution Week

ICSE Posters 2014: Poster track @ ICSE 2014

SSE 2013: 5th International Workshop on Social Software Engineering @ ESEC/FSE 2013

ICPC ERA 2013: Early Research Achievements track of the 21st International Conference on Program Comprehension

ICSE SCORE 2013: Student Contest on Software Engineering @ ICSE 2013

ICPC Demo 2013: Tool demo track of the 21st International Conference on Program Comprehension

CHASE 2013: Cooperative and Human Aspects of Software Engineering @ ICSE 2013

MSR Mining Challenge 2013: Mining Challenge of the 10th Working Conference on Mining Software Repositories

CSMR ERA 2013: Early Research Achievements track of the 17th European Conference on Software Maintenance and Reengineering

ICPC 2012: 20th International Conference on Program Comprehension

ICPC Demo 2012: Tool demo track of the 20th International Conference on Program Comprehension

FutureCSD 2012: The Future of Collaborative Software Development @ CSCW 2012

FSE NIER 2012: New Ideas track of the International Symposium on the Foundations of Software Engineering

FlexiTools 2011: Flexible Modeling Tools @ ICSE 2011

PLATEAU 2010: Evaluation and Usability of Programming Languages and Tools @ SPLASH 2010

CHASE 2010: Cooperative and Human Aspects of Software Engineering @ ICSE 2010

Journal Reviews

EMSE: Empirical Software Engineering journal (25 papers since 2010, Member of the EMSE Review Board since 2014/2015, Distinguished Reviewer Award in 2017)

TSE: IEEE Transactions on Software Engineering (12 papers since 2010)

IEEE Software (11 papers since 2012)

JSS: Journal of Systems and Software (9 papers since 2015)

TBIT: Behaviour & Information Technology (7 papers since 2015)

JSME: Journal of Software: Evolution and Process (5 papers since 2014)

PeerJ (3 papers since 2015)

JBCS: Journal of the Brazilian Computer Society (2 papers since 2016)

TOIT: ACM Transactions on Internet Technology (2 papers since 2013)

TOSEM: Transactions on Software Engineering and Methodology (2 papers since 2015)

PLOS One (2 papers since 2017)

JISA: Journal of Internet Services and Applications (1 paper in 2016)

T-IFS: IEEE Transactions on Information Forensics and Security (1 paper in 2013)

Grant Reviews

ARC: Australian Research Council (9 proposals since 2018)

NSERC: Natural Sciences and Engineering Research Council of Canada (1 proposal in 2017)

NWO: Netherlands Organisation for Scientific Research (1 proposal in 2019)

RGC: Research Grants Council of Hong Kong (1 proposal in 2019)

Reviewer

APSEC: Asia-Pacific Software Engineering Conference, 2016

ASE: International Conference Automated Software Engineering, 2013, 2016

ICSE: International Conference on Software Engineering, 2013, 2012, 2010, 2009, 2008

ICSM: International Conference on Software Maintenance, 2011

ESEC/FSE: Joint meeting of the European Software Engineering Conference and the Symposium on the Foundations of Software Engineering, 2011, 2013

FSE: International Symposium on the Foundations of Software Engineering, 2010, 2014

InfoVis: Symposium on Information Visualization, 2009, 2008

VL/HCC: Symposium on Visual Languages and Human-Centric Computing, 2009, 2008

CHASE: Cooperative and Human Aspects of Software Engineering, 2008

Book: Graph Data Management: Techniques and Applications *(Eds. S. Sakr and E. Pardede)*

Awards

2020: Google Faculty Research Award, USD 39,722 *(with Sebastian Baltes and Markus Wagner)*

2018 – 2020: ARC Discovery Early Career Researcher Award (DECRA), AUD 361,446

2018 – 2019: NC State - University of Adelaide Starter Grant, USD 9,740 + AUD 9,565 *(with Emerson Murphy-Hill)*

2017: JSPS Postdoctoral Fellowship for Research in Japan, Short-term Program

2017: Distinguished Reviewer Award for Outstanding Service as a Reviewer for the Journal on Empirical Software Engineering

2015: Post-doctoral Fellowship from FAPESP, the São Paulo Research Foundation

2015: Best Paper Award at SBSC 2015 *(with Renato Ferreira, Muller Miranda, Fernando Figueira Filho, Cleidson de Souza, and Leif Singer)*

2014 – 2015: Young Talents Scholarship from CNPq's Science Without Borders program, a Brazilian government research initiative

2013: Most Promising Idea Award at ICPC 2013 *(with Chris Parnin and Margaret-Anne Storey)*

2013: Winner of Stack Overflow Visualization Contest *(with Lars Grammel and Chris Parnin)*

2008 – 2011: IBM CAS PhD fellowship

2007 – 2008: University of Victoria fellowship

2004 – 2007: Scholarship from German National Merit Foundation *(Studienstiftung des deutschen Volkes)*

2005 – 2006: Hölderlin Scholarship from SAP AG, Germany

2003 – 2007: Scholarship from e-fellows.net GmbH, Germany

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