Philipp Leitner
Curriculum Vitæ (October 8, 2025)

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SUMMARY

I am currently Associate Professor (Docent) of Software Engineering at Chalmers and the University of Gothenburg, Sweden, where I led the unit "Software Engineering 2" (approximately 25 staff) until August 2025 as well as the Internet Computing and Emerging Technologies (ICET) research lab. I hold a PhD degree from Vienna University of Technology (in business informatics, focussing on cost-aware service composition). My primary research interest is empirical software engineering, with a particular focus on software performance, developer tooling, and the development of Web- and cloud-based systems. My research is funded by Chalmers through the ICT Area of Advance, the Wallenberg AI, Autonomous Systems and Software Program (WASP), the Swedish Research Council (VR), and Sweden's Innovation Agency (VINNOVA). I have published around 125 peer-reviewed publications, leading to an h-index of 48 tracked by Google Scholar.

EDUCATION

Oavlönad Docent in Software Engineering   Jun. 2019
Chalmers University of Technology
    External evaluation of scientific and pedagogical merits, comparable to a Habilitation.

PhD Business Informatics   Oct. 2007 - Oct. 2011
Vienna University of Technology
    On Preventing Violations of Service Level Agreements in Composed Services using Self-Adaptation
    Thesis advisor: Prof. Schahram Dustdar

MSc Business Informatics   Nov. 2005 - Sep. 2007
Vienna University of Technology
BSc Business Informatics   Oct. 2002 - Oct. 2005
Vienna University of Technology

APPOINTMENTS AND WORK HISTORY

Associate Professor <div align="right">Since Oct. 19</div>

Chalmers | University of Gothenburg

- Tenured faculty ("docent")

- Unit manager "Software Engineering 2" ($\sim$25 staff) 2022 - 2025

- Research lead "Internet Computing and Emerging Technologies"

Assistant Professor <div align="right">Aug. 17 - Oct. 19</div>

Chalmers | University of Gothenburg

- Tenure-Track Assistant Professor

- Part of the ICT Area of Advance

Senior Research Associate <div align="right">Jan. 2014 - Jul. 2017</div>

University of Zurich

- Research team leader "cloud-based software engineering"

- PI for SNF project MINCA and Co-PI for Hasler Dev-Cloud and FP7 CloudWave

- Lecturer of various undergrad and graduate courses

Postdoctoral Researcher <div align="right">Nov. 2011 - Dec. 2013</div>

Vienna University of Technology

- Conducted research on cloud computing and middleware

- Taught courses *Advanced Internet Computing* and *Distributed Systems Technologies* on graduate level

- Supervised a large number of master students in their thesis work

Research and Teaching Assistant <div align="right">Oct. 2007 - Oct. 2011</div>

Vienna University of Technology

- Conducted research on service-based systems engineering

- Taught various courses as TA

Research Software Engineer <div align="right">Jul. 2005 - Sep. 2007</div>

Siemens PSE, Vienna

- Worked on industrial research project in the area of telecommunications and network management

ACQUIRED GRANTS

I have successfully acquired grants (personal as well as project grants) totalling **around 2.8 million EUR**:

- WASP Academic PhD Student (2025-2030)
  Academic Supervisor
  Grant value ≈3,600,000 SEK
  (≈ 355.000 EUR)

- WASP Academic PhD Student (2022-2026)
  Academic Supervisor
  Grant value ≈3,600,000 SEK
  (≈ 355.000 EUR)

- Debloating AI Systems (2021), AoA SEED Grant
  Co-applicant
  Total budget 296,000 SEK (my part ≈128,000 SEK)
  (≈ 13.000 EUR)

- FFI TrafCloud (2019 – 2021), VINNOVA
  Co-applicant
  Chalmers budget 5,500,000 SEK (my part ≈3,200,000 SEK)
  (≈ 315.000 EUR)

- VR Starting Grant (2019 – 2022), VR
  Sole applicant
  Grant value 3,639,000 SEK
  (≈ 359.000 EUR)

- WASP Academic PhD Student (2017 – 2021), WASP
  Academic Supervisor
  Grant value ≈3,600,000 SEK
  (≈ 355.000 EUR)

- Chalmers AoA Hiring Startup Package (2017 – 2021), Chalmers Foundation
  Sole recepient
  Grant value 8,000,000 SEK
  (≈ 789.000 EUR)

- Individual Project "MINCA" (2016 – 2019), Swiss National Science Foundation
  Sole applicant
  Grant value 180,000 CHF, at University of Zurich
  (≈ 163.000 EUR)

- Technology Transfer Project "DevCloud" (2016 – 2019), Hasler Foundation
  Co-applicant
  Grant value 50,000 CHF, at University of Zurich
  (≈ 45.000 EUR)

RESEARCH VISITS

Institute of of High-Performance Computing, Singapore	Feb./Mar. 2013
University of Stuttgart, Germany	Apr. 2010

INVITED TALKS AND SEMINARS (SELECTED LIST)

- *A Brief Journey Through History - From Distributed Objects over SOA to Microservices*, Keynote at ICEIS, April 2025

- *A Brief Journey Through History - From Distributed Objects over SOA to Microservices*, Keynote at CLOSER, April 2025

- *Measuring, Predicting, and Improving the Performance of Software Systems*, Invited Talk at the Department Colloquium, Institute for Informatics, University of Zurich, November 2024

- *Bots in Software Engineering*, Invited Talk at WASP4All Webinar, May 2022

- *Unit testing performance using code microbenchmarks. How far are we?*, Invited Talk at the MongoDB Inc. Performance Seminar, November 2020

- *Performance stability of (public) clouds*, Invited Talk at Vehicle Electronics and Connected Services (VECS, industrial conference), April 2019

- *AWS Lambda and #serverless. What's all the fuzz about?*, Invited Talk at the Chaos Engineering Days Stockholm, December 2018

- *Software performance testing in a public cloud – how bad is it really?*, Invited Talk at the Metrics Day 2018, October 2018

- *Performance Testing of and in the Cloud*, Invited Lecture at the IDEA League Doctoral School on Engineering Complex Systems and IT with Big data and Information Technology, September 2018

- *Predictability of Performance in Public Clouds - Some Empirical Data and Lessons Learned for Software Performance Testing*, Seminar at IBM Research, Ireland, November 2017

- *Predictability of Performance in Public Clouds - Some Empirical Data and Lessons Learned for Software Performance Testing*, Invited Talk at the Sixth International Workshop on Load Testing and Benchmarking of Software Systems (LTB 2017), co-located with ICPE'17, April 2017

- *Your User is the Canary - Practices of and Obstacles to Conducting Experiments in Production*, CHOOSE Forum, University of Zurich, September 2016

- *How Predictable is the Performance of IaaS Instances? Some Insights from Benchmarking EC2, GCE, Azure, and Softlayer*, Open Cloud Day, ZHAW Winterthur, June 2016

- *Software Development for the Cloud – Challenges and Opportunities*, Faculty of Informatics, University of Lugano, February 2016

- *Software Development for the Cloud – Challenges and Opportunities*, VU University Amsterdam, November 2015

- *Trends, Opportunities and Challenges of Software Development for the Cloud*, Indian Institute of Technology Ropar, November 2015

- *Trends, Opportunities and Challenges of Software Development for the Cloud*, Indian Institute of Technology New Delhi, November 2015

- *Software Development for the Cloud – Challenges and Opportunities*, Chalmers, Gothenburg, June 2015

- *Engineering Java Applications for the Infrastructure-as-a-Service Cloud*, software evolution & architecture lab, University of Zurich, Zurich, October 2013

- *Building Applications for the Infrastructure-as-a-Service Cloud with CloudScale*, IMDEA Software Institute, Madrid, April 2013

- *Building Elastic Java Applications based on CloudScale and the Infrastructure-as-a-Service Paradigm*, National University of Singapore, School of Computing, March 2013

- *Building Elastic Java Applications based on CloudScale and the Infrastructure-as-a-Service Paradigm*, University of Illinois Advanced Digital Sciences Center, Singapore, February 2013

AWARDS

- Distinguished Reviewer Award (ICSE 2023)

- Best Reviewer Award (SANER 2022)

- Distinguished Reviewer Award (ICSME 2020)

- Distinguished Reviewer Award (MSR 2020)

- Outstanding Reviewer Award (ICPE 2020)

- Outstanding Reviewer Award (ICPE 2019)

- Best Student Paper Award (Middleware 2016)

- Best Short Paper Award (ICPC 2016)

DEPARTMENT SERVICE

- Unit Manager Software Engineering 2 (Chalmers and the University of Gothenburg, 01.04.2022 - 30.08.2025)

- Master Program Administrator Software Engineering (Chalmers and the University of Gothenburg, 01.03.2021 - 01.08.2021)

- Member of the Faculty Senate Drafting Board (IT Faculty, University of Gothenburg, 2021 - 2024)

- Postdoc Representative at the Department of Informatics, University of Zurich (2015 - 2016)

- Member of the Habilitation Committee of Ivona Brandic (TU Vienna, 2013)

- Member of the Habilitation Committee of Karl Michael Göschka (TU Vienna, 2012)

PROFESSIONAL SERVICE

Organized Events

- Co-Organizer of the 1st and 2nd *Vienna Software Seminar (VSS)* on the Relation of Software Architecture and DevOps/Continuous Delivery. Organizers: Uwe Zdun, Philipp Leitner, Florian Rosenberg, Erik Wittern.

- Member of the Steering Committee of the International Workshop on Quality-Aware DevOps (QUDOS). From 2018.

- Dagstuhl GI Seminar on *Software Performance Engineering in the DevOps World* (September 26th – September 30th 2016, Schloss Dagstuhl, Germany). Co-organized with Andre van Hoorn, Pooyan Jamshidi, and Ingo Weber.

- Half-day *CloudWave Training Event* (September 5th 2016, TU Vienna, Austria). Half-day session at ESOCC'16. Co-organized with Andreas Metzger and Eliot Salant.

Editorial Memberships

- Associate Editor of Springer Empirical Software Engineering (EMSE)

- Academic Editor of PeerJ Computer Science (until 2024)

- Editorial Board Member of Elsevier's Journal on Systems and Software (JSS). Responsible for coordinating and implementing the publicity efforts of the journal. 2017 - 2019.

- Special Issue Editor for "Converging Fog and Cloud Computing", in IEEE Cloud Computing. Co-edited with Erik Elmroth, Stefan Schulte, and Srikumar Venugopal.

- Special Issue Editor for "Software Tools and Technologies for Monitoring and Prediction of Cloud Services", in Software: Practice and Experience (published by Wiley-Blackwell). Co-edited with Rajiv Ranjan, Rajkumar Buyya, Armin Haller, and Stefan Tai

Chairmanships

- Chair of the Selection Committee of the 2022 SPEC Kaivalya Dixit Distinguished Dissertation Award

- Program Co-Chair of 13th ACM/SPEC International Conference on Performance Engineering (ICPE)

- Awards Co-Chair of 12th and 17th ACM/SPEC International Conference on Performance Engineering (ICPE)

- Publication Chair of 10th ACM/SPEC International Conference on Performance Engineering (ICPE)

- PC Co-Chair of the 3rd International Workshop on Quality-Aware DevOps (QUDOS), co-located with the 8th ACM/SPEC International Conference on Performance Engineering (ICPE 2017)

- Co-Chair of a Special Session on Services Computing and Internet Technologies (SerCo 2016) at the International Conference on High Performance Computing & Simulation (HPCS 2016)

- Tutorial Chair of the 16th International Conference on Web Engineering (ICWE2016)

- Workshop Chair of the European Conference on Service-Oriented and Cloud Computing (ESOCC) 2015.

- General Chair of the 1st International Workshop on Monitoring and Prediction of Cloud Services (MoPoC'12), co-located with ICSOC'12.

Reviews for Funding Agencies

(partial list)

- National Research, Development and Innovation Office, Hungary (NRDI)

- Dutch Research Council (NWO)

- Natural Sciences and Engineering Research Council of Canada (NSERC)

- Deutscher Akademischer Austauschdienst (DAAD)

- Luxembourg National Research Fund (FNR)

- Wallenberg AI, Autonomous Systems, and Software Program (WASP)

Program Commitee Memberships

(partial list)

- International Conference on Software Engineering (ICSE 2023)

- ACM International Conference on the Foundations of Software Engineering (FSE 2024 and 2025)

- IEEE/ACM International Conference on Automated Software Engineering (ASE 2022 and 2024)

- ACM/SPEC International Conference on Performance Engineering (ICPE, various editions)

- 3rd ACM International Conference on AI-powered Software (AIware 2026)

- IEEE International Conference on Cloud Engineering (IC2E 2021)

- European Symposium on Serverless Computing and Applications (ESSCA 2020)

- International Conference on Microservices (MICROSERVICES 2020)

- IEEE International Conference on Software Analysis, Evolution and Reengineering (SANER, various editions)

- IEEE International Conference on Software Maintenance and Evolution (ICSME, various editions)

- International Conference on Mining Software Repositories (MSR, various editions)

- ACM International Conference on Distributed Event-Based Systems (DEBS 2018)

- IEEE International Conference on Cloud Computing (CLOUD, 2015 – 2018)

- International Conference on Edge Computing (EDGE 2017)

Reviews for Journals

(partial list)

- IEEE Transactions on Software Engineering (TSE)
- ACM Transactions on Software Engineering and Methodology (TOSEM)
- Springer Empirical Software Engineering (ESEM)
- Elsevier Information and Software Technology (IST)
- ACM Transactions on Internet Technology (TOIT)
- IEEE Transactions on Cloud Computing (TCC)
- IEEE Internet Computing (IC)
- IEEE Software
- Elsevier Journal of Parallel and Distributed Computing (JPDC)
- ACM Transactions on the Web (TWEB)
- Elsevier Journal of Systems and Software (JSS)
- IEEE Transactions on Services Computing (TSC)
- Transactions on Pattern Languages of Programming (TPLoP)

RESEARCH STUDENTS

Current PhD Students

- **Lirong (Esme) Yi** (Optimizing Performance using Large Language Models)
- **Ranim Khojah** (Large Language Models in Software Engineering, *co-supervisor*)
- **Huaifeng Zhang** (Debloating ML Systems, *co-supervisor*)
- **Linda Erlenhov** (Bots in Software Development)

Graduated PhD Students

- **Hazem (Peter) Samoaa** (ML for Performance Prediction)
- **Hamdy Michael Ayas** (Architectural Decision Making in Cloud Computing, now consultant at ICTech, Sweden)
- **Joel Scheuner** (Cloud Benchmarking, now software engineer at LocalStack, Switzerland)
- **Christoph Laaber** (UZH, microbenchmarking in CI builds, co-supervised with Harald C. Gall, now postdoc at Simula, Norway)
- **Gerald Schermann** (UHZ, continuous experimentation, co-supervised with Harald C. Gall, now release engineer at digitec.ch, Switzerland)
- **Jürgen Cito** (UZH, cloud performance engineering, co-supervised with Harald C. Gall, now Associate Professor at TU Wien, Austria)

PhD Committee Appointments

- **Lidia Kitane** (Umeå University, member of grading committee)

- **César Soto-Valero** (KTH, member of grading committee)

- **Mohammad Reza Saleh Sedghpour** (Umeå University, member of grading committee)

- **Alim Ul Gias** (Imperial College London, external examiner)

- **Luca Traini** (Università degli Studi dell'Aquila, assessor)

- **Hugo Sica de Andrade** (Chalmers University of Technology, substitute member of grading committee)

- **Lars Larsson** (Umeå University, faculty opponent)

- **Alfred Åkesson** (Lund University, licenciate opponent)

FORMAL PEDAGOGICAL TRAINING

- **Supervision of research** (2017, 3 hp)

- **University teaching and learning** (2017, 3 hp)

- **Perspectives on learning** (2018, 2.5 hp)

- **Enhancing learning through writing** (2018, 5 hp)

- **Diversity and inclusion for learning in higher education** (2018, 2 hp)

- **Teaching project-based courses** (2024, 2.5 hp)

TEACHING ACTIVITIES

Teaching at Chalmers | GU

- Special topics in software engineering (one-time, 2025)

- Miniproject: Distributed Systems Development (DIT356) (since 2023, $\approx$ 80 students)

- Architectures of Scale-Out Systems (DAT490) (since 2022, $\approx$ 70 students)

- Mobile and Web Development (DIT341) (since 2019, $\approx$ 100 students)

- Data Management (DIT032/DAT335) (2018 – 2021, $\approx$ 125 students)

Previous Teaching at University of Zurich

- Informatik 1 (fall 2014 – 2016, $\approx$ 250 students)

- Advanced Software Engineering (spring 2014 – 2017, 10 – 20 students)

- Seminar Advanced Software Engineering (fall 2015 – 2016, 10 – 20 students)

- Master Basismodul (2014 – 2017)

- Informatik-Vertiefung (2014 – 2017)

Previous Teaching at TU Vienna

- VU 2.0 Advanced Internet Computing (fall 2008 - 2013, 140 students)

- VU 4.0 Distributed Systems Technologies (spring 2009 - 2013, 140 students)

- PR 4.0 Internet Computing Lab Work (spring 2009 - 2013)

- UE 2.0 Verteilte Systeme (fall 2009 - fall 2010, $\approx$ 400 students)

- VU 2.0 Grid Computing (spring 2008 - spring 2009, 10 students)

Thesis Supervision at Chalmers | University of Gothenburg

(partial list)

- Kenny Bang and Michael Dang: Impact of Generative AI on Learning Programming (master's thesis, 2024)

- Sam Salek Maghsoudi and Malte Åkvist: Automatically Generated Microbenchmarks from Unit Tests (master's thesis, 2024)

- Ayah Miqdad: The state of performance measurement in open-soure systems (bachelor thesis, 2024)

- Sina Darbouy and Mosope Williamson: Investigating and Mitigating the Impact of Technical Lag and Different architectures on Container Image Security (master's thesis, 2023)

- Albin Johansson and Carl Holmberg: The Impact of Compiler Warnings on Code Quality in C++ Projects (master's thesis, 2023)

- Anthony Path: Optimizing the generation of Java JMH Benchmarks (master's thesis, 2022)

- Florian Johan Markusse: The impact of benchmarking bots on Open-Source-Software projects (master's thesis, co-supervisor, TU Eindhoven, 2021)

- Niclas Alexandersson: JUnit-to-JMH - Automated Generation of Performance Benchmarks from Existing Unit Tests in Java (master's thesis, 2021)

- Sebastian Hafström and Naren Hari Hara Krishnan: Using Policy Engines to handle Authorization in Microservice Architectures (master's thesis, 2021)

- Erik Bäcknas and Eric Börjesson: Total Cost of Ownership Framework to Estimate the Cost of Cloud Computing Services (master's thesis, 2021)

- Yan Wang and Mihkel Sildnik: Debloating Machine Learning Systems (master's thesis, co-advisor, 2021)

- Erik Tingström and George Karageozian: Mining GitHub to Evaluate the Impact of Social Bots on New Committer Retention in OSS Projects (bachelor thesis, 2021)

- Elsada Lagumdzic: Evaluation of Open Source Function as a Service Frameworks: An Experimental Analysis of Auto Scaling Characteristics (bachelor thesis, 2020)

- Joel Sanderöd Roxell and and Matthias Lundell: Automatic container profiling and resource prediction using container orchestration (master's thesis, 2019)

- Yunfang Guo: The Impact of Adopting Continuous Integration on the Delivery Time of Pull Requests - A Partial Replication and Extension (master's thesis, 2019)

- Joel Rollny: An Extensible Framework for Large-Scale Mining of Performance Microbenchmarks (master's thesis, 2018)

- Viktor Holmqvist and Jonathan Nilsfors: Cachematic - Automatic Invalidation in Application-Level Caching Systems (master's thesis, 2018)

Thesis Supervision at University of Zurich

All co-supervised with Prof. Harald C. Gall.

- Michael Susplugas: Continuous Integration and Deployment – Case Study in an Energy Trading Company (master's thesis, 2016)

- Christian Davatz: Application-aware Benchmarking of IaaS Cloud Services (master's thesis, 2016)

- Björn Hasselmann: Mining Performance-Relevant Code Changes from Source Code Repositories (bachelor thesis, 2016)

- Emanuel Stöckli: Predicting the Costs of Code Changes in Microservice Architectures based on Runtime Feedback (master's thesis, 2015)

- Ilia Rhyzhov: Performance Analysis of Virtual Machines from Two Major IaaS Providers – Amazon Web Services (EC2) and Google Compute Engine (GCE) (master's thesis, 2015)

- Christian Bosshard: Feedback Driven Development – Bringing Runtime Metrics to the Developer (master's thesis, 2015)

- Joel Scheuner: Cloud WorkBench - A Web-Based Framework for Benchmarking Public Cloud Services (bachelor thesis, 2014)

Master's Thesis Supervision at TU Vienna

All co-supervised with Prof. Schahram Dustdar.

- Fritz Schrogl: Transparently Migrating Java Objects at Runtime in an Infrastructure-as-a-Service Cloud (2014)

- Jürgen Cito: Statistical Methods in Web Performance (2014)

- Constantin-Claudiu Gavrilete: Exploiting User Behavior and Markup Structures to Improve Search Result Rankings (2013)

- Rene Nowak: Towards Providing Unified Access To Cloud Data Storage Services (2013)

- Denitsa Djamiykova: Monitoring the Correspondence of Physical and Virtual Network Resources in OpenFlow Based Software Defined Networks (2013)

- Johannes Ferner: Using Time Series Analysis to Predict Service Level Agreement Violations in Service Compositions (2012)

- Petra Bierleutgeb: VRoxy – Enriching SOAs With Proxy-Based Dynamic Binding and Reporting Based on VRESCo (joint work with mercatis information systems GmbH, 2012)

- Matthias Irlacher: Using Domain-specific Languages for Event-based QoS monitoring in Service-oriented Environments. (co-supervised with Ernst Oberortner, 2011)

- Mathias Hess: Reducing SLA Violations of Composite Services Deployed to the Cloud (2011)

- Stefan Prennschütz-Schützenau: SOA Security Policy Validation and Authoring (work carried out at IBM T.J. Watson Research Center, New York, 2011)

- Anton Korosec: Deploying a Web Service Runtime Environment into the Cloud (2010)

- Klaus Zettler: Planung, Konzeption und Implementierung eines Virtual Campus im Rahmen von S-Cube (2010)

- Waldemar Hummer: Towards a Domain-Specific Language for Defining Intra-Service Protocols of Stateful Web Services (2009)

ACADEMIC JOURNAL PAPERS [scholar]

- R. Khojah, M. Mohamad, L. Erlenhov, F. Gomes, and **P. Leitner**: *LLM Company Policies and Policy Implications in Software Organizations*, IEEE Software, Special Issue on AIware in the Foundation Models Era (2025). To appear.

- R. Khojah, F. Gomes, M. Mohamad, and **P. Leitner**: *The Impact of Prompt Programming on Function-Level Code Generation*, IEEE Transactions on Software Engineering (TSE), 2025. To appear.

- P. Samoaa, L. Aronsson, A. Longa, **P. Leitner**, and M. H. Chehreghani: *A Unified Active Learning Framework for Annotating Graph Data for Regression Tasks*, Journal of Engineering Applications of Artificial Intelligence (EAAI),138 (2024). https://doi.org/10.1016/j.engappai.2024.109383

- H. M. Ayas, R. Hebig, and **P. Leitner**: *An Empirical Investigation on the Competences and Roles of Practitioners in Microservices-Based Architectures*, Journal of Systems and Software (JSS), 2024. To appear.

- H. M. Ayas, **P. Leitner**, and R. Hebig: *An Empirical Study of the Systemic and Technical Migration Towards Microservices*, Empirical Software Engineering (EMSE), 28, 4 (2023). https://doi.org/10.1007/s10664-023-10308-9

- M. Grambow, D. Kovalev, C. Laaber, **P. Leitner**, and D. Bermbach: *Using Microbenchmark Suites to Detect Application Performance Changes*, IEEE Transactions on Cloud Computing (TCC), 2022. To appear.

- M. Jangali, Y. Tang, N. Alexandersson, **P. Leitner**, J. Yang, and W. Shang: *Automated Generation and Evaluation of JMH Microbenchmark Suites from Unit Tests*, IEEE Transactions on Software Engineering (TSE), 49, 4 (2023), 1704–1725. https://doi.org/10.1109/TSE.2022.3188005

- F. Markusse, **P. Leitner**, and A. Serebrenik: *Using Benchmarking Bots for Continuous Performance Assessment*, IEEE Software, vol. 39, no. 5, pp. 50-55, (2022)

- H. Samoaa, F. Bayram, P. Salza, and **P. Leitner**: *A Systematic Mapping Study of Source Code Representation for Deep Learning in Software Engineering*, IET Software, 2022.

- L. Erlenhov, F. Gomes, and **P. Leitner**: *Dependency management bots in open-source systems—prevalence and adoption.* PeerJ Computer Science 8:e849 (2022). https://doi.org/10.7717/peerj-cs.849

- C. Laaber, **P. Leitner**, and H. Gall: *Applying Test Case Prioritization to Software Microbenchmarks*, Empirical Software Engineering, 26, 133 (2021). https://doi.org/10.1007/s10664-021-10037-x

- M. Grambow, C. Laaber, **P. Leitner**, and D. Bermbach: *Using Application Benchmark Call Graphs to Quantify and Improve the Practical Relevance of Microbenchmark Suites*, PeerJ Computer Science 7:e548 (2021). https://doi.org/10.7717/peerj-cs.548

- J. Scheuner and **P. Leitner**: *Function-as-a-Service Performance Evaluation: A Multivocal Literature Review*, Journal of Systems and Software (JSS), vol. 170. 2020.

- Y. Guo and **P. Leitner**: *Studying the Impact of CI on Pull Request Delivery Time in Open Source Projects — a Conceptual Replication*, PeerJ Computer Science, 2019.

- D. Costa, CP. Bezemer, **P. Leitner**, and A. Andrzejak: *What's Wrong With My Benchmark Results? Studying Bad Practices in JMH Benchmarks*, IEEE Transactions on Software Engineering (TSE). Early access, doi: 10.1109/TSE.2019.2925345.

- B. Varghese, **P. Leitner**, S. Ray, K. Chard, A. Barker, Y. Elkhatib, H. Herry, C.H. Hong, J. Singer, F.P. Tso, E. Yoneki, and M.F. Zhani: *Cloud Futurology*, IEEE Computer 52(9): 68-77 (2019)

- C. Laaber, J. Scheuner, and **P. Leitner**: *Software Microbenchmarking in the Cloud. How Bad is it Really?*, Empirical Software Engineering 24(4): 2469-2508 (2019)

- **P. Leitner**, E. Wittern, J. Spillner, and W. Hummer: *A Mixed-Method Empirical Study of Function-as-a-Service Software Development in Industrial Practice*, Journal of Systems and Software 149: 340-359 (2019)

- G. Schermann, J. Cito, **P. Leitner**, U. Zdun, and H. Gall: *We're Doing It Live: A Multi-Method Empirical Study on Continuous Experimentation*, Information and Software Technology 99: 41-57 (2018)

- G. Schermann, J. Cito, and **P. Leitner**: *Continuous Experimentation - Challenges, Implementation Techniques, and Current Research*, IEEE Software 35(2): 26-31 (2018)

- O. Skarlat, M. Nardelli, S. Schulte, M. Borkowski, and **P. Leitner**: *Optimized IoT Service Placement in the Fog*, Service Oriented Computing and Applications 11(4): 427-443 (2017)

- **P. Leitner** and J. Cito: *Patterns in the Chaos – a Study of Performance Variation and Predictability in Public IaaS Clouds*, ACM Transactions on Internet Technology (TOIT), vol. 16, iss. 3, 2016.

- R. Zabolotnyi, **P. Leitner**, W. Hummer, and S. Dustdar: *JCloudScale: Closing the Gap Between IaaS and PaaS*, ACM Transactions on Internet Technology (TOIT), vol. 15, iss. 3, p. 10:1–10:20, 2015.

- J. Cito, D. Gotowka, **P. Leitner**, R. Pelette, D. Suljoti, and S. Dustdar: *Identifying Web Performance Degradations through Synthetic and Real-User Monitoring*, Journal of Web Engineering, 2015.

- A. Metzger, **P. Leitner**, D. Ivanovic, E. Schmieders, R. Franklin, M. Carro, S. Dustdar, and K. Pohl: *Comparing and Combining Predictive Business Process Monitoring Techniques*, IEEE Transactions on Systems, Man, and Cybernetics: Systems, vol. 45, no. 2, pp. 276 - 290. 2014.

- C. Inzinger, W. Hummer, B. Satzger, **P. Leitner**, and S. Dustdar: *Generic Event-Based Monitoring and Adaptation Methodology for Heterogeneous Distributed Systems*, Software: Practice and Experience, 2014.

- **P. Leitner**, W. Hummer and S. Dustdar: *Data-Driven and Automated Prediction of Service Level Agreement Violations in Service Compositions*, Distributed and Parallel Databases (Springer), vol. 31, no. 3, pp. 447 - 470. 2013

- W. Hummer, O. Raz, O. Shehory, **P. Leitner**, and S. Dustdar: *Testing of Data-Centric and Event-Based Dynamic Service Compositions*, Software Testing, Verification and Reliability, vol. 23, iss. 6, pp. 465-497, 2013.

- **P. Leitner**, W. Hummer and S. Dustdar: *Cost-Based Optimization of Service Compositions*, IEEE Transactions on Services Computing (TSC). 2011, doi:10.1109/TSC.2011.53

- W. Hummer, **P. Leitner** and S. Dustdar: *SEPL - A Domain-Specific Language and Execution Environment for Protocols of Stateful Web Services*, Distributed and Parallel Databases (DPD), vol. 29, nr. 4, pp. 277-307. 2011, doi:10.1007/s10619-011-7079-6

- B. Wetzstein, **P. Leitner**, F. Rosenberg, S. Dustdar and F. Leymann: *Identifying Influential Factors of Business Process Performance Using Dependency Analysis*, Enterprise Information Systems (EIS), vol. 5, nr. 1. 2011, doi:10.1080/17517575.2010.493956

- A. Michlmayr, F. Rosenberg, **P. Leitner** and S. Dustdar: *End-to-End Support for QoS-Aware Service Selection, Binding and Mediation in VRESCo*, IEEE Transactions on Services Computing (TSC), vol. 3, nr. 3, pp. 193-205. 2010, doi:10.1109/TSC.2010.20

- A. Michlmayr, F. Rosenberg, **P. Leitner** and S. Dustdar: *Selective Service Provenance in the VRESCo Runtime*, International Journal on Web Services Research (JWSR), vol 7, no. 2, pp. 65-86, 2010, doi: 10.4018/jwsr.2010040104

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