



Philipp Leitner

Curriculum Vitæ (January 23, 2024)

SUMMARY

I am an associate professor (docent) of software engineering at Chalmers University of Technology. I currently lead the Software Engineering 2 unit, focussing on Software Technology. I teach and conduct research on software development tools for Internet-based systems. Recently, much of my research is on software performance engineering, with a special focus on tools that enable rapid releases of efficient cloud software. I currently supervise a team of 4 PhD students working in the above topics, and have graduated three successful students.

My research is funded through WASP, VR, Vinnova, and the Chalmers Area of Advance on ICT. I hold a PhD degree in business informatics from Vienna University of Technology (2011), and have (co-)authored more than 100 publications to date, leading to an h-index of 45 as tracked by Google Scholar. Recent publication highlights include papers at ICSE, FSE, TSE, EMSE, and an award-winning paper at the USENIX Middleware conference.

In addition to my research and teaching, I organized events (e.g., a Dagstuhl seminar on software performance engineering, or the Vienna Software Seminar series) and special issues related to my area of research. I serve on the programme committee of many of the most visible conferences in the field (e.g., MSR, ICSME, ICPE), and have also acted in organisational roles (e.g., PC chair at ICPE in 2022) for various conferences.

RECENT APPOINTMENTS

Associate Professor <i>Chalmers University of Gothenburg</i>	Since Oct. 19
ICT Area of Advance Assistant Professor (tenure-track) <i>Chalmers University of Technology</i>	Aug. 17 - Oct. 19
Senior Research Associate <i>University of Zurich</i>	Jan. 14 - July 17
Postdoctoral Researcher <i>Vienna University of Technology</i>	Nov. 2011 - Dec. 2013

RECENT ACQUIRED GRANTS

Debloating ML Systems (2021)	<i>Funding:</i> AoA SEED Grant	<i>Role:</i> Co-PI
FFI TRAF-Cloud (2019 - 2022)	<i>Funding:</i> Vinnova	<i>Role:</i> Co-PI
VR Starting Grant (2019 - 2023)	<i>Funding:</i> VR	<i>Role:</i> PI
WASP Student (2017 - 2022)	<i>Funding:</i> WASP	<i>Role:</i> PI
MINCA (2016 - 2019)	<i>Funding:</i> SNF (Swiss)	<i>Role:</i> PI

CURRENT PHD STUDENTS

- Ranim Khojah
- Hamdy Michael Ayas
- Hazeem (Peter) Samoaa
- Linda Erlenhov

SELECTED RELEVANT PUBLICATIONS [\[full list on Google Scholar\]](#)

- H. Zhang, M. Alhanahnah, F. Ahmed, D. Fatih, **P. Leitner**, and A. Ali-Eldin: *Machine Learning Systems are Bloated and Vulnerable*. SIGMETRICS International Conference on Measurement and Modeling of Computer Systems, 2024
- 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), 2022 (**particularly relevant**)
- C. Laaber, H. C. Gall, and **P. Leitner**: *Applying Test Case Prioritization to Software Microbenchmarks*, Empirical Software Engineering (EMSE), 2021 (**particularly relevant**)
- C. Laaber, S. Würsten, H. C. Gall, and **P. Leitner**: *Dynamically Reconfiguring Software Microbenchmarks: Reducing Execution Time Without Sacrificing Result Quality*, Symposium on the Foundations of Software Engineering (ESEC/FSE), 2020
- 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), 2019. (**particularly relevant**)
- C. Laaber, J. Scheuner, and **P. Leitner**: *Software Microbenchmarking in the Cloud. How Bad is it Really?*, Empirical Software Engineering (EMSE), 2019 (**particularly relevant**)
- **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 (JSS), 2019
- J. Cito, **P. Leitner**, M. Rinard, and H. C. Gall: *Interactive Production Performance Feedback in the IDE*, International Conference on Software Engineering (ICSE), 2019 (**particularly relevant**)
- **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), 2016
- J. Cito, **P. Leitner**, T. Fritz, and H. C. Gall: *The Making of Cloud Applications – An Empirical Study on Software Development for the Cloud*, Symposium on the Foundations of Software Engineering (ESEC/FSE), 2015