

Michael Schröder

michael.schroeder@tuwien.ac.at / +43 676 4928170 / Weitlofgasse 7/10, 1180 Vienna, Austria

Education

- PhD, Computer Science**, TU Wien 2019–present
Working on automatic inference of formal grammars from *ad hoc* parsing code.
Advisor: Jürgen Cito
- MSc, Software Engineering & Internet Computing**, TU Wien 2012–2015
Thesis: *Durability and Contention in Software Transactional Memory*
Conducted partly at the University of New South Wales, Sydney
Advisor: Jens Knoop, Co-Advisor: Gabrielle Keller (UNSW)
Graduated with distinction
- BSc, Software & Information Engineering**, TU Wien 2007–2012
Thesis: *Optimizing Lua using run-time type specialization*
Advisor: M. Anton Ertl
Graduated with distinction

Experience

- Research Assistant** 2019–present
TU Wien, Business Informatics Group
Best Distance Learning Award 2020 for commitment in teaching
- Research Internship** Aug–Nov 2021
Microsoft Research, Cambridge, UK
Mentors: Katja Kevic and Brendan Murphy
Finding feature flag interdependencies in the Office codebase. Developed an unsupervised learning algorithm based on probabilistic analysis of telemetry data.
- Research Visit** Oct–Nov 2019
Massachusetts Institute of Technology (MIT CSAIL)
Hosts: Jürgen Cito and Martin Rinard
Large-scale analysis of personal configuration scripts on GitHub. Wrote Python utility *github-searcher* to deal with sample limitations of the public GitHub API.
Funded by the Christiana Hörbiger award for the mobility of young scientists
- Co-Founder & CTO** 2016–2017
Auctionist, an online auction house for fine art and collectibles
Business development, interaction design, full-stack web engineering. Managed scalable deployments of Haskell backend using Docker on AWS.
- Mobile App Developer / AR Consultant** 2015–present
Primary client: Refrakt, a Berlin-based artist collective and design studio.
Notable collaborations include:
— the *Refrakt* app, a virtual museum in augmented reality
— *SwellAR*, a prototype visualising real-time oceanic current data for the Humboldt Forum
— *TAMAM*, a companion app for Berlin’s Museum of Islamic Art

Research Internship

Mar–Jun 2014

University of New South Wales (UNSW), Programming Languages & Systems Group

Host: Gabriele Keller

Development of *Transactional Memory with Finalizers*, an extension to Software Transactional Memory (STM) allowing programmers to safely execute arbitrary I/O during the commit-phase of a transaction. Implemented in a fork of the Glasgow Haskell Compiler (GHC).

Funded by a stipend from TU Wien

University Assistant

2015–2017

TU Wien, Institute of Computer Languages

Facilitating the teaching process for *Program Construction*, the introductory programming course for about 800 first year computer science students. Primarily responsible for weekly recitations in smaller student groups and devising and grading of exams.

Publications

“An Empirical Investigation of Command-Line Customization”, *M. Schröder, J. Cito*
Empirical Software Engineering 27, Article number: 30 (2022)

“Transactional Tries”, *M. Schröder* in: 18th Biennial Workshop on Programmiersprachen und Grundlagen der Programmierung (KPS 2015), Pörttschach am Wörthersee, Austria, October 2015

Talks

Transactional Memory with Finalizers

32nd Workshop of GI SIG Programmiersprachen und Rechenkonzepte. Bad Honnef, Germany.

May 2015

Lambdaheads, Functional Programming User Group Vienna

August 2014

Oracle Labs Brisbane (invited talk)

June 2014

Service

- **Program Committee:** CIKM 2020 (Resource Track)
- **Artifact Evaluation Committee:** ECOOP 2022
- **Sub-Reviewer:** ICSE 2021 (Demonstrations)
- **Beginner’s Mentor:** ZuriHac 2015
- **Student Volunteer:** Vienna Summer of Logic 2014, HiPEAC 2014

Other Notable Projects

Queerbot

2015

A cocktail robot that aims to get people drunk and challenge popular misconceptions about genotype and phenotypic expression, especially as it relates to gender and sexuality. Exhibited at Roboexotica 2015.

Landjäger Kürzestfilmfestspiele

2015–present

A yearly short film festival presented by Landjäger Magazin and emceed by me.