

# 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.

## Selected Publications

### Grammars for Free: Toward Grammar Inference for Ad Hoc Parsers

ICSE-NIER 2022

Michael Schröder and Jürgen Cito

<https://doi.org/10.1145/3510455.3512787>

### An Empirical Investigation of Command-Line Customization

EMSE 2022

Michael Schröder and Jürgen Cito

<https://doi.org/10.1007/s10664-021-10036-y>

### Transactional Tries

KPS 2015

Michael Schröder

## 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
- **Extended Review Committee:** ECOOP 2022
- **Additional 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.