

EDUCATION

- **ETH Zürich** Zürich, Switzerland
• *Master of Science in Data Science; Swiss grade average: 5.4* Sept. 2019 – Jan. 2022 (expected)
Thesis: “Learning to infer Drug-Dose Compositions from single-cell Sequencing Data.”
Notable classes: Deep Learning, Biological Methods for Engineers (Lab), Cell and Molecular Biology for Engineers.
- **Karlsruhe Institute of Technology (KIT)** Karlsruhe, Germany
• *Bachelor of Science in Computer Science; German grade average: 1.3 (top 5% of class)* Oct. 2015 – Sept. 2019
Thesis: “Conditional Density Estimation with Normalizing Flows.”
- **University College London (UCL)** London, UK
• *Computer Science Undergraduate; UK grade average: First class* Sept. 2017 – June 2018
Awards: Scholarship from the German Academic Scholarship Foundation (Studienstiftung).

OPEN SOURCE PROJECTS

- **lleaves** ↗ : LLVM compiler for tree-based ML models. Speeds up inference by ~30x through instruction cache blocking, vectorization, and efficient encodings. Extensive low-level profiling via *perf*. Sole developer, >1.000 downloads on PyPI.
- **Conditional Density Estimation** ↗ : Python library implementing ML algorithms for density estimation. Contributed normalizing flows and variational inference. Supporting paper published on ArXiv ↗ , >60.000 downloads on PyPI.
- **Further Contributions:** Pandas (bugfixes for categorical casting ↗), minimalkv (Google cloud storage support ↗ , continuous integration ↗), conda-forge (building multiple Python packages ↗), conda-pack (SquashFS support ↗).

EXPERIENCE

- **QuantCo** Munich, Germany
• *Data Engineering Intern* Oct 2020 - Present
 - **Datastore migration:** Migrated the main internal datastore from on-disk storage to Google Cloud Storage. Resulted in a new Open-Source package (minimalkv).
 - **Analytics Platform speedups:** Worked on the internal analytics platform that is used by data scientists to develop models. Migrated model checkpoints to SquashFS for 4x faster model reuse and 3x disk space savings.
 - **DevOps establishment:** Set up a centralized repository of CI actions. Enabled CI/CD for most client-facing projects, including nightly tests and automated deployments.
- **First Momentum Ventures** Karlsruhe, Germany
• *Associate (early-stage VC)* June 2018 - Sept. 2020
 - **Startup database:** Together with CTO developed a detailed, auto-updating database of 15K early-stage European startups. System utilized distributed scraping, NLP-based content extraction, and data cleaning.
 - **Product development:** Worked on Django backend for using startup database to semi-automatically find new investments. API database access was sold to stakeholders, reaching 10K€ MRR.
 - **Investing Activities:** Interviewed >50 tech startups, mainly in ML sector. Launched startup competition with Business Insider (> 100 participants). Took part in investment decisions for multiple successfully funded startups.
- **Mercedes-Benz / Daimler** Stuttgart, Germany
• *Co-Founder RoadBot* Sept. 2016 – June 2017
 - **Product development:** Founded RoadBot, a corporate startup for improving customer service in the logistics industry by speeding up phone calls. Interviewed >30 logistics dispatchers, implemented prototypes.
 - **Presentations:** Won Daimler Hackathon at International Auto Show 2016. Presented RoadBot for C-level management and at Mobile World Congress 2017.
- **PionierGarage** Karlsruhe, Germany
• *President* July 2015 – July 2016
 - **Society Management:** Led Germany’s biggest student entrepreneurship society with > 200 members.
 - **Coworking Space:** Opened Germany’s first student-run startup incubator. The ~ 25 supported companies have raised > 250M€, including multiple exits.

PROGRAMMING SKILLS

- **Languages:** Python, Bash, LLVM IR, C, SQL
- **Technologies:** Linux, Docker, AWS, TensorFlow