



Korbinian Koch (he/him)

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Education

- 2021 – present **University of Toronto**, Canada, Master's exchange student, Department of Computer Science
- Relevant courses: *Trustworthy Machine Learning*, *Machine Learning for Healthcare*, *Neural Network Training Dynamics (auditing)*, *Natural Language Computing*
- 2020 – present **University of Hamburg**, Germany, **Intelligent Adaptive Systems (MSc)**, 8 % acceptance rate
- Current GPA 4.0 (1.19 German scale, 95 %), anticipated graduation in April 2023
- 2019 **Louisiana State University**, USA, 4-week exchange, organized by Fulbright Commission
- 2018 **University of Calgary**, Canada, Bachelor's exchange student
- Achieved best grades given that year in classes *Artificial Intelligence (A)* and *Thinking with Data (A+)*
- 2016 – 2020 **University of Hamburg**, Germany, **Human-Computer Interaction (BSc)**
- Awarded best degree in graduation cohort: GPA 4.0 (1.3 German scale, 92 %)
 - Thesis (1.0/100%) on the estimation of voice likability using pre-trained speech embeddings, implemented in Python and Bash using scikit-learn, Keras/Tensorflow, and wandb

Work experience

- 2022 – present **Applied Machine Learning Intern, Vector Institute**, Toronto, 4 months, part-time, ongoing
- Building a Reddit recommender system increasing viewpoint diversity using community embeddings
 - Wrote a Slack notification tool for tracking experiments on own initiative in the second week
- 2019 – 2020 **Cloud-Native Development Intern, MOIA**, Germany, 6 months, part-time
- Developed microservices in Kotlin using REST, GraphQL, and a variety of AWS services
 - Convinced management to allow students and interns to take part in team self-selection
- 2017 – 2018 **Teaching Assistant, University of Hamburg**, Germany, for course *Software Development I*
- Supervised classes of ~30 students, giving feedback to students and grading assignments

Projects

- 2021 **Research** on effects of different SISA **unlearning** strategies on **fairness** for protected groups, **PyTorch**
- 2021 Research on **representation learning** for chest X-rays based on *MedAug* utilizing metadata, **PyTorch**
- 2021 **Modergator**: Automating multimodal **content moderation** for text, speech, and memes in Telegram groups by combining a selection of deep learning models; proof-of-concept implemented in **Python**
- 2021 **Dreamer**: Extended the **reinforcement learning** agent *Dreamer* for additional robotic envs, **Python**
- 2020 **Medium article** in Towards Data Science on **text clustering** with over 60k views, featured by the editors
- 2019 **Lunchdates** Automating bi-monthly lunch dates in our scholarship group using Google Sheets, **Python** and generated HTML emails, increasing surveyed perceived group cohesion by ~20% over 12 months

Leadership and awards

- 2017 – present **Stiftung der Deutschen Wirtschaft (sdw)**, Scholarship, aimed towards the top 1% of German students
- Awarded for outstanding academic potential and determination, extended in 2020
 - Head of local scholarship group from 2019 to 2020 with responsibility for ~60 members, organizing meetups and company visits, interviewing candidates, and onboarding new fellows
- 2017 – 2021 **Student representative** in CS ethics commission, appointments committee, and examination board
- 2020 **International Welcome Week tutor**, onboarding international IAS Master's students from 19 countries
- 2017 – 2019 **Treasurer**, Computer Science Student Council

Competitions and hackathons

- 2020 Google Developer Student Club Munich CTF, Germany, 15th out of 76, team of two
- 2019 API-Hackathon@PwC Frankfurt, Germany, 2nd place, team of six
- 2019 StartUp Weekend Baton Rouge, USA, 1st place, team of eight, solo pitch done by me

Skills and interests

- Tech **Python** (preferred interviewing language), Kotlin, Bash, SQL, Linux, Java, scikit-learn, PyTorch, Tensorflow, Keras, wandb, Jupyter, NumPy, Docker, HTML, REST, GraphQL, AWS, Git, Kanban, Scrum
- Hobbies Arduino, Raspberry Pi, 3D printing, analog photography, economics, traveling
- Affiliations Gesellschaft für Informatik (German Informatics Society), Out in Tech, Queer in AI