Lorenz Roland Heiler

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EDUCATION

Imperial College London   London, United Kingdom
- MSc in Advanced Computing   Sep. 2024 –Sep. 2025
- Courses: Scalable Systems and Data, Reinforcement Learning, Computational Neurodynamics, Computer Vision, Deep Learning, Robot Learning, Software Engineering for Machine Learning Systems, Deep Graph-Based Learning, Non-Euclidean Methods in Machine Learning

ETH Zürich   Zurich, Switzerland
- BSc in Computer Science   Sep. 2020 – Jul. 2024
- Average of 4.86/6.0

Hong Kong University of Science and Technology   Hong Kong
- Exchange semester   Feb. – Jun. 2023
- Courses: Principles of Cybersecurity, Quantum Information, Game Programming

Johannes-Kepler-Gymnasium   Leonberg, Germany
- Abitur (G8), focus on Math, Physics, Economics, English and German   2011-2019

RESEARCH EXPERIENCE

ETH Zürich   Sep. 2023 – Mar. 2024
Bachelor thesis – with Arbrea Labs and Computer Graphics Lab
- Overseen by Prof. Markus Gross and supervised by Dr Endri Dibra and Dr Beren Kaul
- Title: *Image to Image alignment with 3D priors*
- Implementing a pipeline for the alignment of before and after pictures, comparing and using state-of-the-art models for various topics, e.g. Illumination matching, 3D face reconstruction, etc.

Imperial College London   April. 2025 – Sept. 2025
Master thesis – Computational Neuroscience
- Supervised by Dr. Pedro Mediano and Dr. Gregory Scott
- Title: *Evaluating Computational Brain Models as Dimensionality Reduction Methods for EEG*
- Developed standardized pipelines for EEG preprocessing, benchmarking mechanistic and data-driven methods, and integrating hybrid deep learning approaches.

PROFESSIONAL EXPERIENCE

Katie *– Natural Language Processing*   Zurich, Switzerland
Internship (fulltime)   Jun. 2023 – Aug. 2023
- Katie is an NLP startup, developing a chatbot for question-answering, while maintaining the privacy and security of its clients
- Researched and created chunking algorithms for preprocessing and measured their impact on overall accuracy of the model

hmb partners AG *– Architecture company*   Zurich, Switzerland
IT-specialist (ca. 10-15 hours a week)   Jan. 2022 – Feb. 2023
Responsible for:
- Data management/backup
- Compatibility checks for new software

SKILLS AND HOBBIES

Languages: Native in German, C1 in English (111 points in TOEFL iBT)
Computer science knowledge: fluent in Java, C, C++, Python, OCaml and good understanding of Swift app development, Unreal Engine, Github, Microsoft Office
Hobbies: Sport (Tennis, Gym), Music production (Ableton Live), Design, Art, Fashion