# Maximilian Kalcher

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https://github.com/avocardio


## Profile

MSc student working on self-supervised learning and neural decoding, with a strong interest in applying deep learning to understand brain signals. Multilingual (German, Spanish, English) from growing up in Latin America. Outside research I play tennis, spend time outdoors, and build practical, well-designed software.

## Education

**ETH Zurich & UZH** *2024 – 2026*

*MSc. Neural Systems and Computation* Zurich, Switzerland

*— Thesis: Scaling Laws for Clinical Brain Decoding Models*

**Osnabrück University** *2019 – 2023*

*BSc. Cognitive Science* Osnabrück, Germany

*— Thesis: Compressing EEG Data with Neural Networks*

**Deutsche Schule A.v.H.** *2007 – 2019*

*Abitur* Mexico City, Mexico

## Experience

**Browser Use (YC25)** *Jul 2025 – Oct 2025*

*Creative Thinking Intern* San Francisco, USA

Built and shipped prototypes for many different use cases using browsing agents.

**EPFL — Prof. Courtine Lab (.NeuroRestore / ONWARD)** *Jun 2023 – Oct 2023*

*Research Intern* Lausanne, Switzerland

Worked on using self-supervised learning with Electrocorticography (ECoG) data from brain implants to improve neural decoding and walking in patients with spinal cord injury.

**Charité Berlin — Computational Neurology** *Nov 2023 – Jan 2024*

*Research Intern* Berlin, Germany

Worked on using self-supervised learning for patient monitoring, optimizing representations for clinical triage and seizure-pattern detection.

## Publications & Preprints

## Interests

- Neurotechnology and neurorehabilitation
- Foundation models for neural data
- Self-supervised / representation learning
- Compression

## Service & Awards

Reviewer for *Biomedical Signal Processing and Control* (Elsevier), 2024.

Google (Keras) Community Prize Winner — December 2022.