

Rik L. E. M. Ubaghs



Profile/Kurzprofil

I am a neural engineer working on the interface between brain science and technology. Using skills from both (experimental) neuroscience, data science, and biomedical engineering, I develop new technologies that allow us to view the brain in more detail than ever before. I am also generally interested in brain-machine interfaces, machine learning, and systems neuroscience

Work Experience/Berufserfahrung

Research

Inst. of Neuroinf., ETH Zurich/Arago Labs Jun 2023 - current

Postdoc

- Development of a microscope for tumor visualization during invasive surgery.

Inst. of Neuroinf., ETH Zurich Jul 2017 - Jun 2023

Ph.D. Candidate

- Development of a MRI compatible fluorescence microscope (full-cycle product design).
- Design of a paradigm to combine microscopy and MR imaging methods in awake rodents.
- Design of data pipelines for multi-modal data analysis.

Center for Neuroeng., Duke University Dec 2015 - Nov 2016

Visiting Scientist

- Development of hybrid brain decoding methods in Non-human Primates.

Industry

Agora Technology Nov 2016 - Feb 2018

Co-Founder

- Agora Technology builds data solutions to streamline/automate daily operations in the medical sector.
- Creation, maintenance, and analysis of large-scale data solutions using advanced machine learning approaches.

Maastricht University Medical Centre

Dec 2016 - Jun 2017

Data Scientist

- Design of a pipeline to process medical procedural data.
- Development of a centralized database for surgical protocols.

Education/Ausbildung

Ph.D. Neurotechnology

ETH Zürich

Jul 2017 - Jun 2023

Res. M.Sc. Brain and Cognitive Sciences (Cum Laude)

University of Amsterdam

Sep 2014 - Jun 2016

Contact/Kontakt

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Skills/Fähigkeiten

Languages: Dutch (Native)
English (Fluent)
German (Basic)

Programming: Python, Matlab,
Rust, R, SQL

Skills: Biomedical Imaging
Microscopy
Industrial design and manufacturing