

# Rik L. E. M. Ubaghs



## Profile/Kurzprofil

I am a neural engineer specialized in neurotechnology. My areas of expertise are biomedical imaging, medical technology, brain-machine interfaces, and data analysis.

In my work, I am mostly interest in bridging the gab between experimental (neuro)technology and practical applications in the medical domain.

## Work Experience/Berufserfahrung

### Research

**AragoLabs (@Inst. of Neuroinf., ETH Zurich)** Jun 2023 - current  
*CEO, Co-founder*

- Development of a miniaturized microscope for tumor visualization and classification 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

*Founder*

- Built data solutions that aimed to streamline/automate the workflow within medical facilities, especially focussing on surgical equipment.
- Focused on internal logistics, and the creation, maintenance, and analysis of large-scale medical equipment databases using ML/DL.
- Clients included Maastricht University Medical Center and Medtronic.

## Contact/Kontakt

**Nationality:** Dutch (B permit)

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## Skills/Fähigkeiten

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

**Programming:** Python, Matlab,  
Rust, R, SQL

**Skills:** Data science,  
Biomedical Imaging  
Microscopy  
Mechanical design

## 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

B.Sc. Psychology and Neuroscience (Cum Laude)      Maastricht University      Sep 2011 - Jun 2014