Rik L.E.M. Ubaghs

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Bio

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.

Education

ETH Zurich, Zurich, Switzerland July 2017 - May 2023
Ph.D. Neurotechnology

University of Amsterdam, Amsterdam, the Netherlands Sept 2014 - June 2016
Research Master Brain and Cognitive Sciences, Cum Laude

Maastricht University, Maastricht, the Netherlands Sept 2011 - June 2014
Bachelor Psychology and Neuroscience, Cum Laude

Skills

Languages:	Dutch (Native), English (Fluent), German (Basic)
Programming:	Python, Matlab, Rust, R, SQL
Skills:	Microscopy, Industrial Design and Manufacturing, Biomedical Imaging

Research Positions

AragoLabs (@Inst. of Neuroinformatics, ETH Zurich, Zurich, Switzerland) June 2023 - Current
Co-founder
- Development of a miniaturized microscope for tumor visualization and classification during neurosurgery.

Institute of Neuroinformatics, ETH Zurich, Zurich, Switzerland July 2017 – June 2023
Ph.D. Candidate
- Development of a MRI compatible florescence 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 Neuroengineering, Duke University, Durham, USA Dec 2015 – Nov 2016
Visiting Scientist
- Development of hybrid brain decoding methods in Non-human Primates.

Industry Positions

Agora Technology, Maastricht, The Netherlands 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 logistics, and the creation, maintenance, and analysis of large-scale medical equipment databases using ML/DL.
- Clients included Maastricht University Medical Center and Medtronic.