

Wouter Kroot, MSc

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in Wouter Kroot

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Experience

- 06/2023 – 05/2024 □ **Research Intern Computational Neuroscience**, Developed and applied computational models to simulate recurrent interactions for illusory contour responses in the visual cortex. Supervision prof. dr. P.H.E. Tiesinga, Donders Institute, neuroinformatics research group.
- 03/2023 – 06/2023 □ **Literature Review Predictive Coding**, Conducted a comprehensive review on how Prediction Errors are Minimised through Inhibitory Activity. Supervision dr. F. Zeldenrust, Donders Institute, Biophysics of Neural Computation research group.
- 01/2022 – 11/2022 □ **Research Intern In Vivo Electrophysiology**, Utilised Neuropixel recordings to investigate multisensory integration in mouse primary visual cortex, focusing on the double flash illusion. Supervision: L. Montelisciani and dr. U. Olcese, Cognitive and Systems Neuroscience Lab, Swammerdam Institute of Life Sciences, University of Amsterdam.
- 01/2021 – 07/2021 □ **Research Intern MRI**, Linked brain volumetrics of the nucleus Basalis of Meynert to APOE genotype. Involving neuropsychological assessments, experiment planning, recruitment, and assisting MRI-scanning. Supervision dr. H. Jacobs, Alzheimer Center, Maastricht University.
- 01/2020 – 03/2020 □ **Research Assistant EEG Experiments**, Taught neuropsychology students experimental techniques for EEG experiments. Tilburg University.
- 01/2019 – 07/2019 □ **Exchange Student**, Represented Tilburg University during an Erasmus Minor at the University of Limerick, Ireland.
- 01/2018 – 06/2018 □ **Research Intern EEG**, Investigated alpha oscillatory asymmetry as a neural correlate of perceived facial attractiveness. Supervision dr. J. Stekelenburg, Neuropsychology Lab, Tilburg University.
- 09/2014 – 07/2016 □ **High-school Tutor**, Junior High-school Tutor in Natural Sciences.

Education

- 08/2021 – 05/2024 □ **M.Sc. Biomedical Sciences, Cognitive Neurobiology and Clinical Neurophysiology**, University of Amsterdam. Thesis titles: 1. *Neuronal Correlates of the Sound-Induced Flash Illusion in V1*. 2. *Prediction Errors are Minimised by Inhibitory Activity*. 3. *Local cortical structure and recurrency for generating illusory contour responses*
- 08/2020 – 07/2021 □ **M.Sc. Psychology: Cognitive Neuroscience**, Maastricht University
Thesis title: *The Apoε4 Gen Modulates Nucleus Basalis of Meynert Volume during Ageing*.
- 2016 – 2020 □ **B.Sc. Psychology: Cognitive Neuropsychology**, Tilburg University
Thesis Title: *Frontal Alpha Asymmetry and Facial Attractiveness*.
- 2009 – 2016 □ **VWO-NG**, Dr. Mollercollege, Waalwijk
School Research Project: *Replication of Asch's Conformity Experiment*.

Technical skills

- Software ☐ Python, MATLAB, R, SPSS, BASH, NEST, Git, \LaTeX
- Languages ☐ Fluent reading, writing, and speaking competencies in Dutch and English. Intermediate reading of German.
- Misc. ☐ Academic research, Teaching, Laboratory Safety, Animal training

Miscellaneous Experience

- ☐ **Amsterdam Brain and Cognition Summerschool for Computational Neuroscience**, Lecture series on a wide range of current research in computational neuroscience and practicals regarding machine learning and predictive coding
- ☐ **Significant extracurricular courses**: Neural Dynamics and Deep learning (9), MATLAB Applied to Neuronal Data (7.5), Calculus for Physics and Astrophysics (n/a), Linear Algebra for Physics and Astrophysics (n/a), University of Amsterdam. The Relativistic Quantum world (n/a), Studium Generale, Maastricht University, relativity theory and quantum mechanics (2020)
- ☐ **Chair of the yearly Biomedical Sciences Symposium**, University of Amsterdam
- ☐ **Open day Speaker for the Biomedical sciences**, University of Amsterdam
- ☐ **Laboratory Technique**, brain slicing and histological analysis of stained microscopy
- ☐ **MRI-Safety Course**, Scannexus, Maastricht University

References

dr. Paul H. E. Tiesinga

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dr. U. Olcese

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