Curriculum Vitae

Victoria Laura Bosch

Personal details

Name:	**Victoria Laura Bosch**
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Google Scholar:	https://scholar.google.nl/citations?user=P7Ly864AAAAJ
Position:	PhD student
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Education

Nov 2022 – Current:	Ph.D. in Cognitive Computational Neuroscience at the University of Osnabrück Advisor: Prof Dr. Tim C Kietzmann Funded by ERC project 'It's about time: Towards a dynamic account of natural vision'.
Sep 2020 – Jul 2022:	Master in Cognitive Computing (Artificial Intelligence) at Radboud University (Donders Institute). *Cum laude*. Thesis: '*Topographic Neural Networks show neural recycling of labile units during reading acquisitio*n'
Sep 2016– Jul 2020:	Bachelor in Liberal Arts & Sciences (i.e., interdisciplinary studies) with a major in Artificial Intelligence and minor in Philosophy at the University of Utrecht. Thesis: '*A Bayesian perspective on the interaction between numerical and temporal perception*'

Other education

Sept 2023:	Participation in the Analytical Connectionism Summer School at the Gatsby Computational Neuroscience Unit, UCL, London.

Positions

2021- 2022: Member of the Degree Programme Committe (master student representative) of the Artificial Intelligence programme, Radboud University

2019-2021: Editor in-Chief and Board Member at De Focus, Student platform for science communication and outreach

Publications

Publications in peer-reviewed scientific journals

Bosch V. and Mecacci G (2023) Eyes on the road: brain computer interfaces and cognitive distraction in traffic. *Front. Neuroergon.* 4:1171910. doi: 10.3389/fnrgo.2023.1171910

Preprints

ToDO TNN

Bosch, V.†, Lu, Z.†, Doerig, A.†, Krahmer, B., Kaiser, D., Cichy, R., Kietzmann, T.C. (2023). End-to-end topographic networks as models of cortical map formation and human visual behaviour: moving beyond convolutions. *Arxiv*. Open access link: https://arxiv.org/abs/2308.09431

Peer-reviewed conference proceedings

Bosch, V.†, Lu, Z.†, Doerig, A.†, Krahmer, B., Kaiser, D., Cichy, R., Kietzmann, T.C. (2023). The brain can't copy-paste: End-to-end topographic neural networks as a way forward for modelling cortical map formation and behaviour. *Computational Cognitive Neuroscience (CCN).*

Bosch V., Diehl A., Smits D., Toeter A. and Kwisthout J. (2021). Implementation of a Distributed Minimum Dominating Set Approximation Algorithm in a Spiking Neural Network. *BNAIC/BeneLearn*.

Conference contributions

Talks

Implementation of a Distributed Minimum Dominating Set Approximation Algorithm in a Spiking Neural Network. **V. Bosch**, A. Diehl, D. Smits, A. Toeter and J. Kwisthout. BNAIC/BeneLearn 2021, Luxembourg.

Posters

Emergence of topographic organization in a non-convolutional deep neural network. Doerig, A., Krahmer, B., **Bosch, V.**, & Kietzmann, T.C., NVP Winter Conference on Brain and Cognition, 2021

Bosch, V.†, Lu, Z.†, Doerig, A.†, Krahmer, B., Kaiser, D., Cichy, R., Kietzmann, T.C. (2023). The brain can't copy-paste: End-to-end topographic neural networks as a way forward for modelling cortical map formation and behaviour. *Computational Cognitive Neuroscience Conference, Oxford.*

Bosch, V.†, Lu, Z.†, Doerig, A.†, Krahmer, B., Kaiser, D., Cichy, R., Kietzmann, T.C. (2023). The brain can't copy-paste: End-to-end topographic neural networks as a way forward for modelling cortical map formation and behaviour. *Analytical Connectionism Summer School, Gatsby Unit UCL London.*

Bosch, V.†, Lu, Z.†, Doerig, A.†, Krahmer, B., Kaiser, D., Cichy, R., Kietzmann, T.C. (2023). The brain can't copy-paste: End-to-end topographic neural networks as a way forward for modelling cortical map formation and behaviour. *NEAT: NeuroAI Talks conference, Osnabrück.*

Bosch, V.†, Lu, Z.†, Doerig, A.†, Krahmer, B., Kaiser, D., Cichy, R., Kietzmann, T.C. (2023). The brain can't copy-paste: End-to-end topographic neural networks as a way forward for modelling cortical map formation and behaviour. *The Interdisciplinary Computational Cognition Conference (ComCo), Osnabrück.*

Outreach

Bosch, V., *Het voorspellende brein: perceptie als hypotheses over de werkelijkheid* (2021). Popular science article about predictive processing at De Focus.

† Equal contributions

Teaching

Teaching assistant for the following courses:

Machine Learning for Cognitive Computational Neuroscience (Osnabrück University, 2022-2023)

Cognitive Computational Neuroscience (Radboud University, 2022)

Student supervision:

2022 – current Bachelor and Master student thesis supervisor at the University of Osnabrück

Emilly Sidaine-Daumiller (BSc)

Stefan Balle (MSc)

Sabine Scholle (MSc)

Organisation

NeuroAI Talks 2023 at the University of Osnabrück

Performing Robots Conference (2019, Panel Assistant)

Skills

Digital skills

Strong abilities in Cognitive Neuroscience, Machine learning

Fluent in Python. Experience with R, C#, Netlogo, Javascript, HTML and Solidity

Fluent in TensorFlow and PyTorch.

Experienced use of modern source control (Git).

Language skills

Dutch (mother tongue), English (native), German (basic), French (beginner)