Jessica Loke

Postbus 15915 ▮ 1001NK Amsterdam ▮ The Netherlands

jessica_2020@hotmail.com

Education and employment

2018 - present

PhD candidate, University of Amsterdam

My current projects are focused on modelling brain signals (fMRI and EEG) using deep neural networks (DNN). The modelling approach is driven by two major purposes - to describe *how* brains perform specific visual routines, and to *interpret* DNN's activity. Supervised by Dr. H. Steven Scholte and Dr. Natalie Cappaert.

2015 - 2017

Research master student, University of Amsterdam (cum laude)

Specializations: Brain and cognition, methodology and statistics
I completed a research internship (6 months) and master thesis project (8 months). In the research internship, I investigated the influence of transcranial direct current stimulation on visual working memory precision. Supervised by Dr. Ilja Sligte. In the master thesis project, I investigated the influence of task difficulty in object categorization in human subjects and deep neural networks.

2012 - 2015

Residential international student coordinator, University of Nebraska-Lincoln

This was a new (full-time) position created to assist the transition, integration and development of all international students (~800 students). During this period, I designed and developed an Intercultural Program which employed 12 student staff members to mentor new students and host cultural themed events.

2013 - 2014

Research intern, University of Nebraska Public Policy Center

I assisted a research project studying distrust, civil disobedience and hacktivism where I performed literature reviews, audio-taped transcription, and coding for qualitative data.

2009 - 2012

BA in psychology and classics and religious studies (honors and highest distinction, GPA 3.9/4.0)

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Publications

Seijdel N*, **Loke J***, van de Klundert R, van der Meer M, Quispel E, van Gaal S, de Haan EHF, Scholte HS. (2021). On the necessity of recurrent processing during object recognition: it depends on the need for scene segmentation. *Journal of Neuroscience 41*(29), 6281-6289.

Loke J*, Seijdel, N*, van de Klundert R, van der Meer M, Quispel E, Cappaert, N, Scholte HS. (2021). A critical test of deep convolutional neural networks' ability to capture recurrent processing in the brain using visual masking. Manuscript accepted for publication.

* indicates shared first author papers

Teaching and supervision

2019 - present	Lecturer & coordination in two research master courses and one bachelor course ● Neuroimaging: BOLD-MRI ● Neuroimaging: Pattern Analysis ● Cognitive AI
2018 - 2022	Co-supervision of bachelor/master thesis projects of Ron van de Klundert, Matthew van der Meer, Eva Quispel, Alida Graat, Toon Renssen, Nina Vreugdenhil, Emilija Kazakaitytė, Merel Florian, Hannah van Houten, Bente van Katwijk, Meike Tas.
2021	Lead teaching assistant for Neuromatch Academy online summer school in computational neuroscience
2019	Lecturer & content creator for the summer school of Experimental Psychological Graduate School on deep learning in psychology

Organizational experience

- Co-organizer of the Experimental Psychology Research School (EPOS) 2019 autumn school on Deep Learning in Psychology
- Member of the PhD Committee of Psychology at the University of Amsterdam 2021-present
- Member of the Jong UvA Committee at the University of Amsterdam 2022

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Conference presentations and posters

Loke J*, Seijdel, N, van de Klundert R, van der Meer M, Quispel E, Cappaert, N, Scholte HS. (2021). A critical test of deep convolutional neural networks' ability to capture recurrent processing in the brain using visual masking. *Visual Sciences Society,* St. Pete Beach, Florida, USA.

Loke J, Seijdel N, Scholte HS. (2018). Decoding the order of visual operations. *European Conference on Visual Perception,* Trieste, Italy.

Loke J, Seijdel N, Scholte HS. (2017). The order of visual operations with masked and unmasked natural images. *Dutch Society for Psychonomics meeting,* Egmond aan Zee, The Netherlands.

Loke J, Scholte HS. (2017). Dog or poodle: recurrent processing in object categorization. *International Conference for Cognitive Neuroscience (ICON)*, Amsterdam, The Netherlands.