Jan-Philipp Fränken

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Proficient: Python, R, NetLogo, JavaScript, HTML Learning: C++

Education

University of Edinburgh, PhD in Psychology.

September 2019-September 2023 (expected)

Bramley Computational Cognitive Science Lab

University College London, MSc in Cognitive and Decision Sciences.

September 2018-August 2019

GPA: 77.8/100, Distinction, Dean's List

o Courses in programming (Python) and statistics (R).

Maastricht University, BSc in Psychology.

September 2015-July 2018

GPA: 8.98/10, Distinction, Honours

o Exchange at Universitas Surabaya, Indonesia.

Experience

PhD Researcher, University of Edinburgh.

September 2019-Present

- o Applied machine learning tools to model human concept learning resulting in first-author submission (preprint).
- o Used Python and C++ to implement computational models and fit them to experimental data.
- o Developed interactive multiplayer experiments using React and recruited participants using MTurk (demos).
- o Published first-author conference paper and first-author poster at Cognitive Science Society.
- o Leveraged dynamic Bayesian networks to develop account of structure sensitive social inference (toy example).
- o Organised weekly lab meetings and presented research findings in talks at NYU, UC Berkeley, and UCL.

Statistics Tutor, University of Edinburgh.

September 2019-Present

- o Led weekly tutorials helping computer science students with the implementation of causal models in R and RStan.
- o Tutored five courses in statistics using R and awarded £100 for excellent tutoring performance in 2020/2021.

Researcher, City, University of London.

March 2019-December 2020

o Implemented dynamic causal model of resting-state fMRI using SPM and MATLAB (paper in preparation).

MSc Researcher, University College London.

September 2018-August 2019

- o Built an **agent-based model** of echo chamber formation in **NetLogo** resulting in first-author publication (*paper*).
- o Developed experimental paradigm and collected data by running interactive experiment on MTurk using JavaScript.

Consulting Intern, CPC AG - Consultancy for Change Management.

July 2018-September 2018

- $o \ \ Conducted \ market \ research \ and \ conceptualised \ mindfulness \ training \ for \ a \ major \ telecommunications \ provider.$
- o Completed course on agile project management from Scrum.org and received PSM I certificate.

BSc Researcher, Maastricht Research Based Learning.

September 2017-August 2018

- $o \ \ Collaborated \ with \ BSc \ supervisor \ Hugo \ Alberts \ to \ develop \ virtual \ mindfulness \ training \ tool \ for \ Positive Psychology.com.$
- o Tested tool with 80 subjects and found significant impact on subjects' life-satisfaction ratings compared to control.

Research Assistant, Maastricht University.

March 2016-June 2018

o Collected and analysed empirical data using a virtual reality-based deception paradigm resulting in co-author publication.

Selected Leadership and Awards

PhD Scholarship, German Academic Scholarship Foundation.

December 2019-Present

o Awarded competitive scholarship by Germany's most prestigious scholarship foundation (€68,800).

Political Cognition Seminar Series Organiser, University College London.

February 2019-August 2019

o Organised a biweekly seminar series with speakers from Yale, Cambridge, Oxford, LSE, and other top universities.

Lead Course Representative, University College London.

September 2018-August 2019

- o Designed survey to collect data from 70 postgraduate students and presented results to faculty in quarterly meetings.
- o Collaborated with course convenor and developed new assessment format for the module Knowledge, Learning and Inference.

Skills and Interests

- o **Machine learning and statistics**: Bayesian models, Monte Carlo methods, causal inference, reinforcement learning, program induction, information theory, regression, clustering, classification, hypothesis testing, model fitting, optimization.
- o Research skills: Experimental design, model development, data collection, data analysis, data visualisation, report writing.
- o Languages: Native/bilingual proficiency: German, English. Beginner: Bahasa Indonesia.
- o Interests: Kiteboarding, meditation, mixed martial arts, playing guitar.