

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
◦ Courses in programming (Python), statistics (R) and fMRI analysis (MATLAB).
- Maastricht University, BSc in Psychology.** September 2015-July 2018
GPA: 8.98/10, Distinction, Honours
◦ Exchange at Universitas Surabaya, Indonesia.

Research Experience

- PhD Researcher, University of Edinburgh.** September 2019-Present
◦ Applied **machine learning** tools to model human concept learning resulting in first-author submission (*preprint*).
◦ Used **Python** and **C++** to implement computational models and fit them to experimental data.
◦ Leveraged **dynamic Bayesian networks** to develop account of structure sensitive social inference (*toy example*).
◦ Published first-author conference *paper* and first-author *poster* at Cognitive Science Society.
◦ Developed interactive multiplayer experiments using **React** and recruited participants using **MTurk** (*demos*).
◦ Organised weekly lab meetings and presented research findings in talks at NYU, UC Berkeley, and UCL.
- Statistics Tutor, University of Edinburgh.** September 2019-Present
◦ Led weekly tutorials helping computer science students with the implementation of **causal models** in **R**.
◦ 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
◦ Implemented **dynamic causal model** of resting-state fMRI using **SPM** and **MATLAB** (paper in preparation).
- MSc Researcher, University College London.** September 2018-August 2019
◦ Built an **agent-based model** of echo chamber formation in **NetLogo** resulting in first-author *publication*.
◦ Developed experimental paradigm and collected data by running interactive experiment on MTurk using **JavaScript**.
- BSc Researcher, Maastricht Research Based Learning.** September 2017-August 2018
◦ Collaborated with BSc supervisor Hugo Alberts to develop virtual mindfulness training tool for PositivePsychology.com.
◦ 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
◦ 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
◦ Awarded competitive scholarship by Germany's most prestigious scholarship foundation (€68,800).
- Political Cognition Seminar Series Organiser, University College London.** February 2019-August 2019
◦ 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
◦ Designed survey to collect data from 70 postgraduate students and presented results to faculty in quarterly meetings.
◦ Collaborated with course convenor and developed new assessment format for the module Knowledge, Learning and Inference.

Skills

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