

Jan-Philipp Fränken

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janphilippfranken.github.io



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

Education

University of Edinburgh, PhD in Psychology.

Bramley Computational Cognitive Science Lab

September 2019-December 2022 (expected)

University College London, MSc in Cognitive and Decision Sciences.

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

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

September 2018-August 2019

Maastricht University, BSc in Psychology.

GPA: 8.98/10, Distinction, Honours

- o Exchange at Universitas Surabaya, Indonesia.

September 2015-July 2018

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, PositivePsychology.com.

September 2017-August 2018

- o Collaborated with BSc supervisor Hugo Alberts to develop virtual mindfulness training tool for PositivePsychology.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.