

# Jan-Philipp Fränken

janphilipp.franken@gmail.com

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-September 2023 (expected)

### University College London, MSc in Cognitive and Decision Sciences.

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

- Courses in programming (Python), statistics (R) and fMRI analysis (MATLAB).

September 2018-August 2019

### Maastricht University, BSc in Psychology.

GPA: 8.98/10, Distinction, Honours

- Exchange at Universitas Surabaya, Indonesia.

September 2015-July 2018

## Research Experience

### PhD Researcher, University of Edinburgh.

Supervisor: Neil Bramley

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.

Supervisor: Dimitris Pinotsis

March 2019-December 2020

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

### MSc Researcher, University College London.

Supervisor: David Lagnado

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.

Supervisor: Hugo Alberts

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.

Supervisor: Henry Otgaar

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.

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

December 2019-Present

### Political Cognition Seminar Series Organiser, University College London.

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

February 2019-August 2019

### Lead Course Representative, University College London.

- 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.

September 2018-August 2019

## 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.

