

# Jan-Philipp Fränken

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## Education

### PhD, Psychology

*Bramley Computational Cognitive Science Lab*

- Awarded competitive scholarship by the ESRC and German Academic Scholarship Foundation (€68,800).

University of Edinburgh

2019-2022 (exp.)

### MSc, Cognitive and Decision Sciences

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

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

University College London

2018-2019

### BSc, Psychology

GPA: 8.98/10, Distinction, top 1% of cohort

- Participated in competitive honours programme and completed elective in computational modelling.
- Semester abroad at Universitas Surabaya, Indonesia.

Maastricht University

2015-2018

## Professional Experience

### PhD Researcher (Supervisor: Neil Bramley)

Dept. of Psychology, University of Edinburgh

- Used **Python** to build a model of **probabilistic program induction** resulting in first-author submission (preprint [here](#)). 2019–present
- Leveraged **dynamic Bayesian models** to develop accounts of structure sensitive social inference (paper in preparation).
- Published first-author conference paper at CogSci 2020 (paper [here](#)) and poster at CogSci 2021 (poster [here](#)).
- Tested model predictions by running multiplayer experiments on **Prolific** and Amazon **MTurk**.
- Built **React** applications in **JavaScript** using **Box2D** and **Socket.IO** (demos [here](#)).
- Used Python and **R** to analyse experimental data and fit computational models.
- Presented research findings in talks at UC Berkeley, UCL, and MPI for Biological Cybernetics.
- Organised **reinforcement learning** reading group covering ten-part course by David Silver.

### Tutor, Computational Modelling & Statistics

School of Informatics & Dept. of Psychology, University of Edinburgh

- Supported students with the implementation of computational models of cognition and statistical models in R.
- Awarded £100 for excellent tutoring performance in 2020/2021.

2019–present

### Researcher (Supervisor: Dimitris Pinotsis)

Centre for Mathematical Neuroscience, City, University of London

- Implemented a **Dynamic Causal Model** of resting-state fMRI leveraging **Parametric Empirical Bayes**.
- Used **Statistical Parametric Mapping** in **MATLAB** to fit the model to rodent data (paper in preparation).

2019–2020

### MSc Researcher (Supervisor: Toby Pilditch)

Dept. of Experimental Psychology, University College London

- Built an **agent-based model** of echo chamber formation using **NetLogo** resulting in first-author publication (paper [here](#)).
- Implemented behavioural experiment on Mturk using JavaScript to test predictions of Bayesian agents.
- Deployed regression models in R to analyse behavioural data.

2018–2019

### Research Assistant (Supervisor: Henry Otgaar)

Faculty of Psychology and Neuroscience, Maastricht University

- Collected empirical data using a **virtual reality-based** deception paradigm.

2016–2018

- Analysed results, presented findings to the university's forensic psychology section, and co-authored publication (paper [here](#)).

## Selected Leadership and Organization

### Lead Course Representative

University College London

- Worked together with faculty to improve students' learning experience and wellbeing.

2018–2019

### Political Cognition Seminar Series Organizer

University College London

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

2018–2019

### Child Interview Trainer

Universitas Indonesia

- Assisted Henry Otgaar with the training and examination of police officers on forensic child interviewing.

October 2017

## Skills

- **Programming:** Python, R, MATLAB, NetLogo, JavaScript, HTML, CSS.
- **Technical skills:** Machine learning and statistics (probabilistic program induction, Bayesian models, reinforcement learning, causal inference, regression, classification, clustering, hypothesis testing, model fitting), experimental design, data analysis, data visualisation, agent-based modelling, React applications, Websockets.
- **Languages:** Native/bilingual proficiency: German, English; Beginner: Bahasa Indonesia.

## Interests and Hobbies

- Kiteboarding, meditation, mixed martial arts, playing guitar.