

# Jan-Philipp Fränken

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## Education

### PhD, Psychology

*Bramley Computational Cognitive Science Lab*

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

University of Edinburgh

December 2022 (exp.)

### M.Sc., Cognitive and Decision Sciences

GPA: 77.8/100, Distinction ([Dean's List](#), [transcript](#))

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

University College London

September 2019

### B.Sc., Psychology

GPA: 8.98/10, Distinction, top 1% of cohort ([transcript](#))

- Elective in computational models as part of interdisciplinary [honors program](#) (Grade: 9.5/10).
- Completed [MaRBL](#) excellence program (Grade: 9.0/10).
- Semester abroad at Universitas Surabaya, Indonesia (GPA: 4.0/4.0).

Maastricht University

September 2018

## Selected Professional Experience

### Tutor, Computational Cognitive Science ([INFR10054](#))

- Supported students with the implementation of basic computational models of cognition in R.

School of Informatics, University of Edinburgh

September 2021–present

### PhD Researcher (Supervisor: [Neil Bramley](#))

- Used **Python** to build new models of **probabilistic program induction** [\[1\]](#).
- Leveraged **dynamic Bayesian models** to develop accounts of structure sensitive social inference (paper in preparation).
- 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 analyze experimental data and fit computational models (e.g., [\[2\]](#)).
- Presented research findings in talks at UC Berkeley, UCL, MPI for Biological Cybernetics, and CogSci.

Dept. of Psychology, University of Edinburgh

2019–present

### Tutor, Statistics ([PSYL11053](#) and [PSYL11054](#))

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

Dept. of Psychology, University of Edinburgh

2019–present

### Research Assistant (Supervisor: [Dimitris Pinotsis](#)) Center 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.
- Summarized findings in Methods and Results section and sent draft to collaborators at MIT.

2019–2020

### MSc Researcher (Supervisor: [David Lagnado](#))

- Built an **agent-based model** of echo chamber formation using **NetLogo** resulting in first-author publication [\[3\]](#).
- Implemented behavioural experiment on Mturk using JavaScript to test predictions of Bayesian agents.
- Deployed regression models in R to analyze behavioural data.

Dept. of Experimental Psychology, University College London

2018–2019

### Research Assistant (Supervisor: [Henry Otgaar](#))

- Collected empirical data using a **virtual reality** based deception paradigm.
- Analyzed results, presented findings to the university's Forensic Psychology Section, and co-authored publication [\[4\]](#).

Faculty of Psychology and Neuroscience, Maastricht University

2016–2018

## Selected Leadership and Organization

### Lead Course Representative

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

University College London

2018–2019

### Political Cognition Seminar Series Organizer

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

University College London

2018–2019

### Child Interview Trainer

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

Universitas Indonesia

October 2017

## Skills

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

## Interests and Hobbies

- Kiteboarding, meditation, mixed martial arts, playing guitar, acquiring cross-cultural competence.