Jan-Philipp Fränken

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Education

PhD, Psychology — **University of Edinburgh**
Bramley Computational Cognitive Science Lab — *December 2022 (exp.)*
- Funded by the German Academic Scholarship Foundation and ESRC (€68,800).

M.Sc., Cognitive and Decision Sciences — **University College London**
GPA: 77.8/100, Distinction (Dean's List, transcript) — *September 2019*
- Courses in statistics (R), programming (Python) and fMRI analysis (MATLAB).

B.Sc., Psychology — **Maastricht University**
GPA: 8.98/10, Distinction, top 1% of cohort (transcript) — *September 2018*
- Elective in computational models as part of interdisciplinary honors program (Grade: 9.5/10).
- Completed MaRBLe excellence program (Grade: 9.0/10).
- Semester abroad at Universitas Surabaya, Indonesia (GPA: 4.0/4.0).

Selected Professional Experience

Tutor, Computational Cognitive Science (INFR10054) — **School of Informatics, University of Edinburgh**
- Supported students with the implementation of basic computational models of cognition in **R**. — *September 2021–present*

PhD Researcher (Supervisor: Neil Bramley) — **Dept. of Psychology, University of Edinburgh**
- Used **Python** to build new models of **probabilistic program induction** [1]. — *2019–present*
- 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.

Tutor, Statistics (PSYL11053 and PSYL11054) — **Dept. of Psychology, University of Edinburgh**
- Supported students with the implementation of univariate and multivariate statistical models in R. — *2019–present*
- Used online teaching tools such as **Gather.town** and **Blackboard Collaborate**.
- Awarded £100 for excellent tutoring performance in 2020/2021.

Research Assistant (Supervisor: Dimitris Pinotsis) — **Dept. of Mathematical Neuroscience, City, University of London**
- Implemented a **Dynamic Causal Model** of resting-state fMRI leveraging **Parametric Empirical Bayes**. — *2019–2020*
- 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.

MSc Researcher (Supervisor: David Lagnado) — **Dept. of Experimental Psychology, University College London**
- Built an **agent-based model** of echo chamber formation using **NetLogo** resulting in first-author publication [3]. — *2018–2019*
- Implemented behavioural experiment on Mturk using JavaScript to test predictions of Bayesian agents.
- Deployed regression models in R to analyze behavioural data.

Research Assistant (Supervisor: Henry Otgaar) — **Faculty of Psychology and Neuroscience, Maastricht University**
- Collected empirical data using a **virtual reality** based deception paradigm. — *2016–2018*
- Analyzed results, presented findings to the university's Forensic Psychology Section, and co-authored publication [4].

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**
- Organized a biweekly seminar series with speakers from Yale, Cambridge, Oxford and other top universities. — *2018–2019*

Child Interview Trainer — **Universitas Indonesia**
- Assisted Prof. 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 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.