Jan-Philipp Fränken

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Education

PhD, Psychology University of Edinburgh

Bramley Computational Cognitive Science Lab

December 2022 (exp.)

o 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

o 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

- o Elective in computational models as part of interdisciplinary honors program (Grade: 9.5/10).
- o Completed MaRBLe excellence program (Grade: 9.0/10).
- o 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

o 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 2019-present

o Used **Python** to build new models of **probabilistic program induction** [1]. o Leveraged **dynamic Bayesian models** to develop accounts of structure sensitive social inference (paper in preparation).

- o Tested model predictions by running multiplayer experiments on **Prolific** and Amazon **MTurk**.
- o Built React applications in JavaScript using Box2D and Socket.10 (demos here).
- o Used Python and R to analyze experimental data and fit computational models (e.g., [2]).
- o 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

o Supported students with the implementation of univariate and multivariate statistical models in R.

2019-present

- o Used online teaching tools such as Gather.town and Blackboard Collaborate.
- o Awarded £100 for excellent tutoring performance in 2020/2021.

Research Assistant (Supervisor: Dimitris Pinotsis) Dept. of Mathematical Neuroscience, City, University of London

o Implemented a Dynamic Causal Model of resting-state fMRI leveraging Parametric Empirical Bayes.

2019-2020

- o Used Statistical Parametric Mapping in MATLAB to fit the model to rodent data.
- o 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

- o Built an agent-based model of echo chamber formation using NetLogo resulting in first-author publication [3].
 - 2018–2019
- o Implemented behavioural experiment on Mturk using JavaScript to test predictions of Bayesian agents. o Deployed regression models in R to analyze behavioural data.

Research Assistant (Supervisor: Henry Otgaar) Faculty of Psychology and Neuroscience, Maastricht University

o Collected empirical data using a virtual reality based deception paradigm.

2016–2018

o 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

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

2018–2019

Political Cognition Seminar Series Organizer

University College London

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

2018–2019

Child Interview Trainer

Universitas Indonesia

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

October 2017

Skills

- o Programming: Python, R, MATLAB, NetLogo, JavaScript, HTML, CSS.
- o **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.
- o Languages: Native/bilingual proficiency: German, English; Beginner: Bahasa Indonesia.

Interests and Hobbies

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