

Aini Putkonen

CONTACT INFORMATION

Aini Putkonen
Helsinki, Finland

research@ainiputkonen.fi
[GitHub X Website](#)

PROFESSIONAL INTERESTS

My research focuses on understanding and modelling human decision-making in interactive systems. I build computational models that are founded on theories of human decision-making developed in cognitive science, economics and psychology. Currently I work on developing simulation models in visual search and multi-attribute choice tasks.

EDUCATION

PhD, Interactive Systems **Feb. 2021 - present**

Aalto University School of Electrical Engineering, Espoo, Finland

- Research on user modelling in interactive systems (*Computational Behavior Lab*).
- Supervisor: prof. Antti Oulasvirta.

MSc, International Design Business Management **Sept. 2019 - Nov. 2020**

Aalto University School of Science, Espoo, Finland

- Thesis: *Inverse Modelling of Players' Attitudes Towards Risk in Tactical Turn-based Games*.
- Graduation with honours (GPA 4.8/5).

BA, Economics & Management **Oct. 2015 - Jul. 2018**

University of Oxford (Brasenose College), Oxford, UK

- Subjects including: Behavioural and Experimental Economics, Quantitative Economics, Finance.

VISITS

ETH Zürich, Switzerland

April 2024 - June 2024

University of Birmingham, UK

Sept. 2022 - Dec. 2022

WORK EXPERIENCE

Research Assistant

Jan. 2020 - Jan. 2021

Aalto University School of Electrical Engineering, Espoo, Finland

Visiting Associate

June 2020 - July 2020

Boston Consulting Group, Helsinki, Finland

Junior Software Engineer

July 2018 - Aug. 2019

Hogarth Worldwide, London, UK

Operations Summer Analyst Intern

June 2017 - Aug. 2017

JPMorgan Chase Bank, London, UK

PUBLISHED RESEARCH

- Suyog Chandramouli, Danqing Shi, **Aini Putkonen**, Sebastiaan De Peuter, Shanshan Zhang, Jussi Jokinen, Andrew Howes, and Antti Oulasvirta. (2024) *A Workflow for building Computationally Rational Models of Human Behavior*. *Computational Brain & Behavior*. <https://doi.org/10.1007/s42113-024-00208-6>
- Danqing Shi, Yujun Zhu, Jussi P. P. Jokinen, Aditya Acharya, **Aini Putkonen**, Shumin Zhai, and Antti Oulasvirta (2024) *CRTypist: Simulating Touchscreen Typing Behavior via Computational Rationality*. *CHI '24*. <https://doi.org/10.1145/3613904.3642918>

- Alexander Aushev, **Aini Putkonen**, Gregoire Clarté, Suyog Chandramouli, Luigi Acerbi, Samuel Kaski, and Andrew Howes. (2023) *Online simulator-based experimental design for cognitive model selection*. *Computational Brain & Behavior*. <https://doi.org/10.1007/s42113-023-00180-7>
- Zhi Li, Yu-Jung Ko, **Aini Putkonen**, Shirin Feiz, Vikas Ashok, IV Ramakrishnan, Antti Oulasvirta, and Xiaojun Bi. (2023) *Modeling Touch-based Menu Selection Performance of Blind Users via Reinforcement Learning*. *CHI '23*. <https://doi.org/10.1145/3544548.3580640>
- **Aini Putkonen**, Aurélien Nioche, Markku Laine, Crista Kuuramo, and Antti Oulasvirta. (2023) *Fragmented Visual Attention in Web Browsing: Weibull Analysis of Item Visit Times*. *ECIR '23*. https://doi.org/10.1007/978-3-031-28238-6_5
- **Aini Putkonen**, Aurélien Nioche, Ville Tanskanen, Arto Klami, and Antti Oulasvirta. (2022) *How Suitable is Your Naturalistic Dataset for Theory-based User Modeling?* *UMAP '22*. <https://doi.org/10.1145/3503252.3531322>
- Yu-Jung Ko, **Aini Putkonen**, Ali Selman Aydin, Shirin Feiz, Yuheng Wang, Vikas Ashok, IV Ramakrishnan, Antti Oulasvirta, and Xiaojun Bi. (2021) *Modeling Gliding-based Target Selection for Blind Touchscreen Users*. *MobileHCI '21* . <https://doi.org/10.1145/3447526.3472022>
- Ville Tanskanen, Chang Rajani, Homayun Afrabandpey, **Aini Putkonen**, Aurélien Nioche, Arto Klami (2021) *Modeling Risky Choices in Unknown Environments*. *ACML 2021* . <https://proceedings.mlr.press/v157/tanskanen21a.html>

TEACHING
EXPERIENCE

- ELEC-E7871 - User-centred Design with Generative AI**, Aalto University
 · Co-responsible teacher of the course. **Spring 2024**
- ELEC-E7110 - Trends in Communications Engineering Research**, Aalto University
 · Giving the lecture *Computational Models of Human Behaviour*. **Fall 2023**
- ELEC-E7851 – Computational User Interface Design**, Aalto University
 · Giving the lecture *Modeling workflow* (available [here](#)). **Fall 2021**
- ELEC-E7890 – User Research**, Aalto University
 · Giving the lecture *User Modeling* (available [here](#)). **Fall 2021**
 · Acting as the main teaching assistant. **Fall 2020**
- ELEC-D7010 – Engineering for Humans**, Aalto University
- Giving the lectures
 - *Decision-making*. **Spring 2023**
 - *Decision-making and Reasoning*. **Spring 2022**
 - *Heuristics and Biases in Human Decision-Making*. **Spring 2021**

LANGUAGES

Finnish, native or bilingual proficiency
English, native or bilingual proficiency
French, limited working proficiency
Swedish, limited working proficiency

INTERESTS

Yoga, road cycling, running, knitting and crafts.