

Cognitive scientist

Experience

2022 - present (2 years)

Senior Scientist

Alena (Aya Technologies Ltd)

I led multiple scientific initiatives, including: clinical evaluation of the product in randomised-controlled trials (RCTs), conducting in-depth user research, engineering data pipelines & visualisation dashboards to track critical growth metrics, designing UI and graphical assets for the product, and developing machine learning algorithms for product personalisation features.

2019 - 2022 (3 years)

Research Fellow

Max Planck UCL Centre for Computational Psychiatry and Ageing Research (University College London)

Led multiple research projects, including one using machine learning to track how the brain retrieves memories while making risky decisions, and another using neurocomputational modelling to investigate how people judge the value of different choices.

2018 - 2019 (9 months)

Postdoctoral Research Fellow

Queensland Brain Institute, Bond University

Used virtual reality (VR) to investigate how memory is affected by context changes. Research attracted media attention from radio (including *Times*) and was published in *The Conversation*.

Education

2015 - 2019 (4 years)

PhD (Cognitive Neuroscience)

Queensland Brain Institute (The University of Queensland)

2011 - 2014 (4 years)

Bachelor of Psychological Science (Hons I)

Queensland Brain Institute (The University of Queensland)

Skills

Programming languages

Javascript, React, Python, MATLAB, R, HTML, CSS, SQL

User research & experimental design

User interviews, creating surveys, A/B testing, cohort analyses, usability testing methods

Software and APIs

Mixpanel, Google Cloud (functions, BigQuery, etc.), Apple App Store Connect, Meta reporting, Typeform, Hex

Machine learning & computational modelling

Dynamic causal modelling, reinforcement learning, custom model construction (behaviour, marketing, etc.), regularised logistic/linear regression models, support vector machines, large language models (LLMs)

Statistics

Machine learning methods, Bayesian methods, mixed effects modelling

Psychology

Anxiety disorders, empathy, memory, cognitive behavioural therapy (CBT), visual perception

Project management

Agile framework, team leadership, communication across cross-disciplinary teams

Visual design

Adobe Photoshop + Illustrator + After Effects, Figma, Squarespace, user interface design, static and animated graphical assets, social media ad design, Canva

Publications

524 citations

h-index: 9

For full list of **17** publications in peer-reviewed journals and official outlets, see:

<https://scholar.google.com.au/citations?user=KxPWaFgAAAAJ&hl=en&oi=ao>