

Matthew Barty

[linkedin.com/in/matthew-barty/](https://www.linkedin.com/in/matthew-barty/)

UX Engineer | Full-Stack Web Developer | Data Scientist

Matthew.barty@outlook.com

6 years of technical, cross-functional experience in product development in the HealthTech sector ✨

I proudly research, design, develop, and test the world's most complex and wonderful products - Including surgical robots, neurostimulation implants, satellite and comms, AI powered applications, and more!

Full Projects Portfolio:

📧 mattbarty.com/projects

| Professional Experience

UX Engineering Consultant (HealthTech)

2022 – Present

@ [The Technology Partnership \(TTP\)](#) | *World-Class Technology & Design Consultancy*

- Broad project leader and individual contributor experience in UX/HF/Usability studies applied to neurotech, therapeutic implants, consumer diagnostics, intervention & imaging, surgical robotics markets (*and more*),
- UX mentor and founder of TTP Coding Club to encourage and mentor new and junior programmers,
- Presenter and panelist at Digital Health World Congress, London 2023 discussing UX, Usability, & AI

Clinical Data Scientist

2020 – 2022

@ [CMR Surgical](#) | *Surgical Robotics Unicorn (\$3bn valuation)*

- Designed data pipelines to retrieve, process, and report on real-world surgical data from robot system,
- Conducted research, statistical analysis, and data validation on real-world surgical data,
- Responsible for data visualization, and general internal/external presentation of data insights

Human Factors Engineer

2018 – 2020

@ [CMR Surgical](#) | *as above ~*

- Designed, executed and reported on 30+ usability studies (formative and summative) with surgeons, nurses, and other HCPs for complex surgical system,
- Executed successful full-system validation study of the Versius surgical robotics system,
- Responsible for risk management documentation and designed complex algorithms to ensure consistency, accuracy, and traceability between critical design documents.

| Technical Skills

UX Engineering	Project management, HCI design, Interaction design, Research study design, Quant & Qual research, Contextual inquiry, Ethnography, Questionnaire design
UX Design	Adobe Photoshop, Illustrator, InDesign, Premiere, Figma
Frontend Dev	JavaScript, TypeScript, ReactJS, NextJS, TailwindCSS, HTML, CSS
Backend Dev.	NodeJS, Express.js, RESTful API Development (FastAPI), AWS S3 & CloudFront, Git
Data Science (AI/ML)	Python, TensorFlow, Deep Learning (CNN & RNN), Computer Vision, NLP, LLMOps, Systems Design, Numpy, Matplotlib, SQL, R, Statistical Analysis, Numpy, Scikit-Learn

| Education

MSt Healthcare Data	University of Cambridge, UK	2020 – 2022
BSc UX, Ergonomics, & Human Factors	Loughborough University, UK	2014 – 2018