

Matthew Barty

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

UX & HF Engineer | Data Scientist | Applied AI

Matthew.barty@outlook.com

8 years of technical, cross-functional experience in research & product development, primarily in the HealthTech.

Expertise in leading projects, researching, designing, and developing complex systems – Including surgical robots, neurostimulation implants, satellite and comms, AI powered creative applications, and more!

Full Projects Portfolio:

[🔗 mattbarty.com/projects](https://mattbarty.com/projects)

| Technical Skills

Data Science (AI/ML)	Python, TensorFlow, LLMops, Generative Diffusion (stable diffusion), Computer Vision, NLP, Matplotlib, Deep Learning (CNN & RNN), SQL, R
Frontend Dev	JavaScript, TypeScript, ReactJS, NextJS, TailwindCSS, HTML, CSS
Backend Dev.	NodeJS, Express.js, RESTful API Development (FastAPI), AWS Suite, Git
UX Engineering	Project leadership, HCI design, Interaction design, Research study design, Quant & Qual research, Contextual inquiry, Questionnaire design
UX Design	Adobe Photoshop, Illustrator, InDesign, Premiere, Figma

| Professional Experience

UX & Human Factors Engineering Consultant (HealthTech) 2022 – Present

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

- Generated over £800k in consulting fees by leading HFE & UX teams on MedTech innovations (e.g., neurostimulation implants, consumer diagnostics, intervention & imaging),
- Delivered 300+ hours of technical upskilling through AI/HF advocacy programs and community mentorship,
- Keynote speaker and panelist at Digital Health World Congress, London 2023, discussing 'AI as a Tool for Accessibility in HealthTech'.

Clinical Data Scientist 2020 – 2022

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

- Enhanced data visibility and accessibility company-wide through presentations and mentorship,
- Influenced key business strategy decisions with research initiatives, statistical analysis, and data validation of real-world surgical data.

Human Factors Engineer 2018 – 2020

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

- Successfully validated the safety & effectiveness and usability of complex 'Versius' surgical robotics system,
- Designed, executed, analysed and reported on 40+ usability and clinical engineering studies with surgeons, nurses, and HCPs for complex surgical hardware systems, accessories, and software features,
- Implemented automated algorithms and systems that transformed risk management system traceability.

| Education

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