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Extensive experience in collaborative software development. Passionate about using my technical expertise to improve the lives of others and contribute to a better world.

EXPERIENCE -

Machine Learning Research Assistant

INFINITY

Mar - Aug 2024, Oct 2024 - Present

Paid Internship

• Developed Python packages for evaluating large language models (LLMs) and testing novel decoding strategies

• Deployed LLMs on high-performance compute clusters

Git / Rust / Python / Svelte / PyTorch / Slurm

Educational Software Developer

Sir Peter Mansfield Imaging Centre

Jan - Jul 2024

Paid Internship

• Developed a Python-based tool for modelling MRI image acquisition¹

• Collaborated with supervisor to iteratively design user interface

Python / SciPy / OpenCV / Tkinter

Front-end Developer and Web Support

Torchbox

Jul - Sep 2017, Nov 2019 - Mar 2020

• Front-end development for Wagtail, an open source CMS used by NASA, Google, and the UK Government among others

• Implemented A-to-Z menu page for the University of Oxford

• Helped to provide customer support for international clients via video and email

Git / HTML / JavaScript / jQuery / CSS / Sass

EDUCATION -

Distinction

Paid Internship

Machine Learning in Science MSc

University of Nottingham

Sep 2023 - Sep 2024

Advanced topics including neural computation, computer vision, reinforcement learning and language processing, with a strong focus on group/pair work and the scientific applications of machine learning.

Dissertation Topic: Optimising Neural Text Generation via Biased Trajectory Sampling

Computer Science and Artificial Intelligence BSc (Hons)

Second Class, Upper Division

Loughborough University

Sep 2020 - Sep 2023

Covered the theoretical foundations of CS, such as mathematical logic, graph theory and complexity analysis. Hands-on practical experience with software development, mobile app design, cloud computing, and cybersecurity.

Dissertation Topic: Estimating Age and Gender from Facial Images Using Deep Neural Networks

PROJECTS -

- **Ceri Launcher**: Android launcher developed with Flutter. Featured in Android Authority's *Android Apps Weekly*. Accumulated 250,000+ installs before sale to 3rd-party
- GPTyper: Real-time, context-driven note-taking web app using Node.js and OpenAI's API³
- PicarSim: Modular Python-based driving simulator, developed to curate synthetic data for self-driving models (MLiS Project, University of Nottingham, 2024)

SKILLS -

- Proficient in multiple programming languages including Python, Java, and C++, with 10+ years of experience
- Proven ability to collaborate effectively with cross-functional teams, including designers and project leaders for successful outcomes
- Strong communication skills honed through diverse internship experiences and many collaborative university projects

All other references available on request.

¹ aithub.com/LauraBortolotti/Inflatable-MRI-software

² androidauthority.com/android-apps-weekly-275-2-1010731

³gptyper.jckpn.com