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Personal Profile

I am a computer science graduand eager to apply my skills and knowledge in a professional setting. Throughout my degree, and my previous work, I have worked both independently and as part of multiple teams in a variety of roles, in both in-person and remote working environments. I am excited to continue my professional development and contribute to innovative and impactful projects

Education

2019 - 2023: MEng Computer Science, University of York

- Currently averaging a First-class Honours
- Modules include Software Engineering, Data Science, Intelligent Systems, Evolutionary Computing and Computer Vision

2017 - 2019: The Blue Coat School, Oldham

- A Level: Mathematics (A*), Computer Science (A), Physics (B)
- AS Level: Further Mathematics (A)

2012 - 2017: Saddleworth School, Oldham

- 3 GCSEs: Grades 9-5 (including English and grade 9 Maths)
- 8 GCSEs: 2 A*s (Computer Science & Further Mathematics), 6 As

Technical Skills

- Quick to learn new programming languages and tools
- Proficient in Python & Java. Experience with C, HTML, JavaScript, and Haskell
- Experience with SQL, including complex requests as part of previous projects
- Experience with Git, used for both personal and university projects, as well as Continuous Integration practices
- Understanding and experience with machine learning libraries such as PyTorch and Scikit-learn
- Experience with languages and tools such as EssencePrime & Savile Row, the Eclipse Modeling Framework, and the KWin scripting API
- Experience using Windows and Linux both in the command line and with desktop environments such as GNOME, KDE Plasma, and Xfce
- IT Literate, competence in Microsoft Office packages

Work & Voluntary Experience

2020 - 2022: President, Comic Society, University of York

Lead a team to host weekly events and foster a community, both in-person and online, during a difficult period for societies

2017 - 2019: Team Leader, Blue Ginger, Oldham

Managed a busy takeaway both individually and as part of a team. Co-ordinated employees, handled money and documented daily income and expenses. Communicated clearly with staff members for whom English is a second language

Projects

2023: KWin Dynamic Desktops

Creating a KWin script (in Javascript) for KDE Plasma that dynamically creates and removes virtual desktops in a manner similar to GNOME workspaces, whilst supporting the ability to maximise windows to a new virtual desktop

2023: Master's Group Project - Mars Rover & Digital Twin

Worked as part of a team to create a "Mars rover" using the Lego Spike kit, and a corresponding digital twin. Implemented a message system for hub-to-hub communications using Pybrick's Bluetooth data broadcasting feature. Wrote rover logic, including an emergency stop system, using the MicroPython-based Pybricks API

2022-23: Classification & Generation of Images

Used PyTorch to create a convolutional neural network to classify hand drawn tree symbols, and created a generative adversarial network to generate tree symbols of specific classes

2021-22: Third Year Project - How Important is a City Street?

Identified ideal streets for pedestrianisation, using Python and data from OpenStreetMap to estimate the importance of streets using the Eigendata Centrality, and performed simple traffic flow analysis to estimate the impact of closing important roads to vehicles

2021: Java Game Group Project

Part of a team with no previous game development experience who worked as software engineers on a 2D game in Java based on a list of requirements, and improved a game created by another team. Learned about application architectures and Java best practices, along with how to use LibGDX, use Git, and work as part of a remote team based in multiple countries

2020-23: Home Server

Managing an Ubuntu server acting as a NAS, personal VPN, and web server. Required understanding of Linux, Docker, and networking, along with a commitment to maintenance and troubleshooting

2018: Menu Streamlining

Developed a set of tools to streamline the menus of restaurants and fast food businesses. Used Java and MySQL to analyse a set of menus, recipes, and sales data to identify ingredients required for dishes that make a low overall profit. The tools considered the cost to purchase ingredients, the price of dishes, and the sales figures for every dish

Interests

- Machine learning, its possibilities for reducing workload & improving productivity, how we can further improve it, and the ethical and legal considerations that will need to be made
- Software development, writing legible code, and how to create good documentation
- How free & open source, self-hosted, and decentralised technology can implement the principles of a "small web" and empower individuals to take control over our digital lives