Zachary Upstone

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Personal Profile

I am a recent graduate with a 1st in Computer Science from the University of Bath. I have experience working in both software development and quality assurance at BSQUARE an IoT solutions company. From this, I also gained experience working within a team in an agile environment developing my communication skills. I also have experience working multiple customer-facing job at McDonalds and a bar making me into a adaptable and enthusiastic worker who is good at handling people. I am also a team worker having experience working on group projects throughout university, this also shows that I am reliable and trustworthy.

Education

2020 - 2024	**University of Bath – Computer Science BSc – First Class Honours.** Overall grade – 74.51% **Units including:** - **Final year project** (Dissertation) - 71% - titled "Human Involvement Can Improve Current Image Synthesis Methods within the Domain of Art" explored using human feedback to improve underlying agents for image synthesis in a manner similar to ChatGPT, this was implemented in Python. - **Logic and semantics of programming languages** - 81% - I studied how category theory relates to the underlying logic of programming languages, including the lambda calculus and closed cartesian categories. - **Entrepreneurship** - 72% - As a team we started a company developing a business plan for a company selling services between a student community. - **Graphs and Networks: Theory and Applications** – 73% - **Reinforcement learning** - 71% - In a group our team implemented DQN, RAINBOW and PPO in Python to solve the lunar lander environment in OpenAI's gym. - **Advanced graphics processing** - 89% - From scratch I developed a ray tracer in C++, implementing reflection, refraction and other lighting effects, concluding with implementing photon mapping. - **Safety-critical systems** - 79% - I studied case studies of how systems shortcoming in relation to safety in the past and how to mitigate or prevent such problems in the future.
2013 - 2020	**Chesham Grammar School** **A level:** Further Mathematics (A), Mathematics (A*), Computer Science (A), Physics (A). **GCSE's**: 4 grades 9's, 2 grade 8's, 3 grades 6's, 1 grade 5, 1 grade A.

Work Experience

July 2022 - June 2023	- **Student software developer at BSQUARE,** during my degree, I had a yearlong placement at BSQUARE, in which I worked 6 months in the development team for SquareOne in which I fixed bugs, produced new features (such as an OS updates page and a tour for a product) and tested code during QA sprints and 6 months in the

		QA team in which I wrote automated tests (for API and UI), performed manual tests and managed the delegation of manual testing during the QA sprint.
Nov 2021 - June 2022	-	**Bar staff at the Students Union at the University of Bath,** I dealt with customers requests serving drinks, cleaning and operating a till. I had to use communication skills and be adaptable to new jobs.
July 2021 - Oct 2021	-	**Crew member at McDonalds,** I worked at multiple station in McDonalds showing flexibility and ability to work in a team. This required good communication within the team in case I was needed at different stations.
July 2020 - Sept 2020	-	**Assistant Gardener at RM Gardening,** this included manual labour and dealing with customers' requests developing my tenacity and adaptability to different workplace environments.

Other Experience

Nov 2018 - Mar 2020	-	Volunteered at **WorkAid** a tool repair shop for 18 months, In which I learned to fix knitting machines and gained skills in organisation and problem solving.
July 2019	-	1 Week work experience at the **Audit Bureau of Circulations** in various departments reviewing magazines authenticity and managing IT issues which helped me understand how a team of people is coordinated.
June 2018	-	2 Weeks at the IT help desk at **Close Brother Asset Management** assisting with various jobs, including network problems, software installation/setup and sorting hardware appliances. This helped develop my team communication and people skills.

Technical skills

- Experience with **C++, Java** and **Python** from my degree
- Experience with **Angular (TS, HTML, CSS), Selenium,** and **Gherkin** from BSQUARE
- Experience working in an **agile environment** and using **Jira** from BSQUARE
- Experience with **React** from personal projects and hackathons
- Experience working in a team from McDonalds and BSQUARE
- Customer service skills from SU bar
- Full UK driver's license

Achievements

- Gold DofE, in which I completed two expeditions hiking in the Brecon beacons and Snowdonia.
- Competed in BathHack 2021 and 2024 using React both times producing web games.
- Employee of the month August 2021 at McDonalds

Interests

I have a keen interest in art and design producing prints using spray techniques as well as collages and clay sculptures. I am also interested in exercise going to the gym and swimming multiple times a week.

References

Hannah Stainer	Alan Hayes
Operations manager at BSQUARE	Personal tutor at the University of Bath
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