

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 current AI image generation techniques 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% - Working as a team we started a company and developed a business plan selling services within a student community.
- **Graphs and Networks: Theory and Applications** - 73% - I studied a Maths modules based around graph theory.
- **Reinforcement learning** - 71% - Working as a group, we 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, to create a realistic generated image.
- **Safety-critical systems** - 79% - I studied case studies of system’s shortcomings 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.
<u>Other Experience</u>	
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.
<u>Technical skills</u>	
	- 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
<u>Achievements</u>	
	- 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
<u>Interests</u>	
	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.
<u>References</u>	
	Hannah Stainer Operations manager at BSQUARE HannahS@bsquare.com
	Alan Hayes Personal tutor at the University of Bath AH347@bath.ac.uk