

## Experience

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|---|---|-----------------------------|
| <b>Software Engineer</b>  | <b>Raytheon</b> (Harlow, UK)                | <b>Nov 2022 -- Present</b>  |
| <ul style="list-style-type: none"><li>Proven <b>C</b> and <b>Python</b> software development and problem-solving skills to design and develop functionality and performance enhancements, bolstering Raytheon's complex radar system portfolio which serves <math>\frac{2}{3}</math> of global air traffic.</li><li>Expertise in communicating with customers to define issues and devise effective solutions.</li><li>Thrived in a multi-disciplinary small team environment, engaging with team members to drive effective cross-functional collaboration and succeed in large customer contracts.</li></ul>  |   |                             |
| <b>Software Engineer</b>  | <b>Izs Software</b> (London, UK, Part-Time) | <b>Jul 2020 -- Jan 2022</b> |
| <ul style="list-style-type: none"><li>Software Engineer for multiple full-stack development contracts whilst studying for my 2:1 BSc Computer Science degree.</li><li>Devised novel solutions to client problems by identifying and incorporating multiple <b>APIs (AWS, LinkedIn, Stripe)</b> into modern, responsive <b>Django, React</b> web applications, improving user count and revenue numbers:<ul style="list-style-type: none"><li>Built a custom <b>Django-backed</b> social media scheduling platform with <b>Amazon Web Services (AWS) S3</b> bucket storage integration. The platform improved client brand awareness and productivity.</li><li>Developed a monetised <b>JavaScript</b> Chrome extension that interfaces with Amazon.com to facilitate product market research for clients. The extension increased revenue for ViewTest by amassing 1000+ users.</li><li>Engineered a custom <b>React</b> survey platform that integrates with a third-party survey respondent marketplace to provide ViewTest clients with paid market insights and enhanced ViewTest's revenue model.</li><li>Integrated Shimmercat's compression engine into a <b>JavaScript</b> Chrome extension demonstrating image compression quality and generating compression statistic, improving new partnership agreement conversion.</li></ul></li><li>Demonstrated strong leadership and communication skills by devising solutions for clients and meeting tight deadlines as evidenced by a large number of satisfied clients who have provided positive feedback for me.</li></ul> |   |                             |

## Education

- B.Sc. Computer Science (2:1)**, Durham University. **2019 -- 2022**

**Relevant Courses:** Algorithms and Data Structures, Networks and Systems, Artificial Intelligence

## Projects

**Alertbnb** <https://alertbnb.com>

- Developed a full-stack authenticated **Django and React** web application that incorporates **Stripe** payments, **Celery** scheduled tasks and **Scrapy** to create a custom Airbnb alert suite with paying users.

**Technical Blogging Website** [Github Link](#)

- Developed [lukezsmith.com](https://lukezsmith.com), a blogging website using **Django** and **React**.
- Published technical articles on topics such as [AWS Lambda Layers](#) and building [Serverless file-sharing MacOS apps](#).

**Co-operative Multi-agent Reinforcement Learning in Partially Observable Card Games** [Github Link](#)

- Constructed a number of **deep reinforcement learning** solutions for team-based card games.
- Used **Python** and **PyTorch** to build agents comparable with state-of-the-art academic literature.

**YawPy** [Github Link](#)

- Built a 3D graphics engine with **Python, NumPy** and **Pandas**. The engine provides real-time model output based on IMU data and a complementary filter that fuses gyroscope, accelerometer and magnetometer readings.

## Skills

- Languages:** Python, JavaScript, HTML, CSS, C, Bash, Java
- Frameworks:** Django, Node.js, React, Flask
- Technologies:** MongoDB, SQL, AWS (S3, Lambda Functions, CloudFront and Route53), Git, PyTorch, Docker

## Awards

- Finalist of DurHack 2019 with WalkingBuddy, an **Android** app for scheduling group walks for enhanced city safety.
- Zero-Knowledge University 2022 Cohort Scholarship.