Ruben Lopes

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Personal Experiences

Reading Students' Union

Website Developer Assistant   October 2024 Present

At my university's student union, I am responsible for assisting in the management and development of the student union website. Assisted in developing and maintaining the website using HTML, CSS, and JavaScript to enhance functionality and user experience.

- Enhanced functionality and user experience using HTML, CSS, and JavaScript.

- Contributed to front-end development for a responsive, user-friendly interface.

- Introduced documentation for improved organisation.

- Built a custom UI library aligned with the brand theme.

HP Inc. - Wolf Security

DevOps Engineer (Industrial Placement)   July 2023 June 2024

In my role as a DevOps Engineer during my industrial placement at HP, I actively utilised React (Typescript) to make UI, used Python with Django to create REST APIs, contributed to the development of internal tools, and scripted in Bash and PowerShell. I was responsible for setting up services for production within virtual environments and gained hands-on experience with cloud technologies like Docker and virtualisations. Additionally, I gained hands-on experience with the software development lifecycle by using tools such as Git and Jenkins to set up CI/CD pipelines.

- Gained experience with full stack development using Python (Django), SQL using PostgreSQL and building UI components using React.js and TypeScript.

- Hands-on experience with Linux (Debian-based), and Scripting in Python, PowerShell, and Bash.

- Developed Jenkins CI/CD pipelines using Groovy, Docker, GitHub, and Git.

University of Reading - IT

AV (Audio Visual) Assistant   November 2022 - June 2023

During my tenure as an AV Assistant at the University of Reading, I adeptly troubleshooted issues with Windows and audio-visual equipment. This experience not only sharpened my technical skills but also enhanced my soft skills, particularly in effective communication and collaborative problem-solving.

- Troubleshooting Windows and audio-visual equipment issues.

UKRI - Science and Technology Facilities Council

Computational Scientist (Summer Placement)   June 2022 - September 2022

During the summer of 2022, I worked on the Sasview project at STFC. I was tasked with automating and improving parts of the software, which allowed me to gain hands-on experience with programming in C and Python. Additionally, I worked with software engineers and scientists worldwide, developing and presenting ideas that further improved my teamwork and communication skills. My task specifically was to implement four significant features: Tabs for the UI, Batch calculating, 2D data slicing and calculating support for Pr, and Data Noise Reduction using SVD, which significantly improved the users productivity.

- Gained valuable real-life experience in programming in C and Python.

- Designed UI with Qt, integrating Matplotlib for visualisation and NumPy and SciPy for numerical computations.

- Created automated testing.

- Utilised version control such as Git.

- Improved planning, presenting, and documentation skills.

Education

University of Reading

Bachelors in Computer Science   September 2021 - Current (Expected to Graduate in July 2025)

- First Year (68%): C/C++ programming skills, Linux, Git, and problem-solving abilities with high achievement in Mathematics and Computation (85%).

- Second Year (72%): Developed an Android app in Java and conducted penetration testing for security. Explored Data Science with Python and Software System Design.

- Third Year: Focused on AI, Data Integration, Image Analysis, and NLP. My Final-year project focuses on investigating the risks of large language models in automated cyber-attacks and potential defences.

New College Swindon

September 2017- June 2021

- GCSEs (Maths, English, Physics, Chemistry, and Biology) 4 6.

- BTEC Level 3 in Computing Distinction Star, Distinction, Distinction (D*DD).

Key Skills

- Proficiency with GNU/Linux and Windows Server.

- Full Stack Web Development: Frontend with React.js, HTML, CSS, JavaScript, TypeScript; Backend with SQL and Django.

- Programming in C, C++, Go, and Python.

- Virtualisation experience with Oracle VirtualBox, QEMU, and containerisation using Docker.

- Continuous Integration (CI) using Jenkins.

- Knowledge of the Software Development Life Cycle (SDLC).

- Shell scripting in Bash, Python, and PowerShell.

- Strong mathematical aptitude and problem-solving skills.

- Experience with electronics and microcontrollers.

- Test writing with Playwright and PyTest.

References

Available on request.