Ruben Lopes

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I am currently pursuing a Bachelor's degree in Computer Science and have valuable experience in programming and development. With a deep-rooted interest and passion for computers and technology, I aspire to pursue a career as a software developer. I enjoy acquiring new skills and approaches, not only from my field but also from other domains and applying them to the work I do.

Personal Experiences

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 setting up CI/CD pipelines.

- Gained experience with full stack development using Python (Django), SQL using PostgreSQL and MySQL, and building Ui components using React.js and TypeScript.
- Hands-on experience with Linux (Debianbased), and Bash scripting.
- 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

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, including developing and presenting ideas which further improving 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. This would significantly Improve the user's productivity.

- Gained valuable real-life experience in programming in C and Python.
- Use of Automated Testing and version control such as Git.
- Improved Planning, Presenting and Documentation skills.

Education

University of Reading - Bachelor's in Computer Science

September 2021 - Current (July 2025)

First Year: Upper Second-Class – 68%

- **Programming in C/C++:** Improved programming abilities in C/C++ and enhanced knowledge of Linux commands and Git.
- Mathematics and Computation: (85%) Help strengthened problem-solving skills, with a significant application during STFC placement.

Additional modules: Applications of Computer Science, Fundamentals of Computer Science, Software Engineering, and Student Enterprise.

Second Year: First Class - 72%

- Programming in Java: Designed interfaces and developed a dynamic Android application.
- Databases and Information Security: Conducted penetration testing, identified vulnerabilities, and organised security strategies.

Additional modules: Algorithms and Operating Systems, Compilers, Computer Architecture and Networking, Programming in Python for Data Science, Software System Design with UML, and Service-Oriented System Architecture.

New College Swindon

September 2017- June 2021

GCSE (Maths, English, Physics, Chemistry and Biology) – **4 – 6 BTEC Level 3 In Computing** – Distinction Star, Distinction, Distinction (**D*DD**)

During my BTEC award in Computing, we undertook a variety of coursework's which helped me to deeply enhance my writing, coding, and designing abilities. Our lecturers also emphasised the use of best practises, which has substantially improved my work quality.

- Using Databases and SQL Queries
- The significance of cyber safety and security
- Improved my understanding of the Software Development Life Cycle

Key Skills

- Proficiency in using GNU/Linux, Windows Server
- Full Stack web development using React.js, HTML, CSS, SQL, and JavaScript
- Programming in java, C, C++, Go and Python
- Mathematical aptitude
- Problem-solving skills

- Working Knowledge of Virtualisation using Oracle Virtual Box, QEMU and containerisation using Docker
- Knowledge of Software Development Life Cycle
- Shell Scripting in Bash
- Working with Electronics and Microcontroller
- Writing Tests using Playwright and PyTest