Joshua Banga

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Personal Profile

Software engineer with proven data analytics experience delivering measurable results including 3x productivity improvements through automation. Strong foundation in C++, Python, and systems programming with hands-on experience in full-stack development, data processing, and team leadership. Currently developing custom operating system (irisOS) while seeking software engineering roles.

Experience

Team Leader, Myer – Sydney, Australia   Sep 2022 - Jul 2023
- Redesigned order fulfillment operations using zero-budget approach, reducing customer wait times by 33% and enabling 2-person operation (previously requiring 3 staff)
- Led cross-functional teams of up to 6 members, successfully mentoring 2 employees who advanced to leadership positions

Data Analyst, Fleet Logistics UK – Birmingham, England   Jan 2021 – Mar 2021
- Automated data analysis workflows using Python (Pandas, NumPy, Matplotlib) for optimisation over Excel, increasing productivity 3x from 1 report/day to 3 reports/day
- Built CO2 emissions analytics platform processing fleet data from 50+ companies and 10,000+ vehicles, delivering predictive insights that directly informed Account Manager strategy
- Ensured GDPR-compliant data integration across 20+ countries, enabling seamless UK-German office collaboration

Technology Intern, IBM – Birmingham, England   Jun 2020 – Jun 2020
- Led 5-person team through technology consulting challenge, coordinating remote collaboration and delivering sustainability-focused recommendations to IBM representatives

Junior Data Analyst, Fleet Logistics UK – Birmingham, England   Feb 2019 – Jun 2019
- Developed standardised data processing frameworks using Excel VBA and Python, systematically handling recurring anomalies and improving model accuracy
- Produced 100+ quarterly business reviews across 20+ clients, supporting Account Manager presentations with advanced Excel functions and PowerBI data visualisations

Research Intern, Rolls-Royce – Birmingham, England   Oct 2016 – May 2017
- Analysed fuel valve failure mechanisms using SolidWorks CAD modelling and Newtonian modelling, proposing conical redesign solution that enhanced structural integrity
- Collaborated with cross-functional engineering team to present findings at conference, earning Gold CREST Award recognition

Projects

- **irisOS:** A custom operating system from scratch (bare-metal programming) with a focus on low-level programming, memory management, and system architecture for ARM (ARMv8) processors   [(Github)](#)
- **Resume Selector:** A cross-platform desktop application for adjusting a résumé using Qt framework and a CMake build system, with object-oriented programming (OOP) design principles considered   [(Github)](#)
- **Personal Portfolio & Blog:** A full-stack web application using Django framework with responsive HTML5/CSS3/JavaScript frontend and PostgreSQL database integration (through Supabase API)   [(Github)](#)

Education

University of Birmingham – BSc Natural Science (majoring Computer Science)   Aug 2024
Relevant Coursework: Programming in Java (82%), Security and Networks, Multi-variable Calculus
University of Technology, Sydney – BSc Year Abroad   Jun 2023
Data Analytics in Python (86%), Introduction to Quantum Computing (92%)
Cloud Computing Infrastructure, Application Development in C#

Skills

Programming Languages: C++ (with GTest unit testing), Python, Go, SQL, C#
Technologies: Git Version Control, AWS (EC2, S3), CI/CD Pipelines, Docker