Otto White

LinkedIn: https://www.linkedin.com/in/otto-white/ Email: otto.white20@imperial.ac.uk
GitHub: https://github.com/ottowhite Mobile: +44 74620 03706

Education

Imperial College London **October 2020 - June 2024**

- Computer Science MEng; First Class Honours (On track)
- Relevant courses: Software Engineering for Industry, Performance Engineering, Data Processing Systems, Distributed Algorithms, Concurrency, Advanced Computer Architecture, OSs, Custom Computing.

Hurstpierpoint College **Sept 2018 - June 2020**

- A-levels; A*A*A*A* (Maths, Further Maths, Computer Science, EPQ (Machine learning))

Experience

BidFX **April 2023 - August 2023**

Core Engineer

- Primarily responsible for design and implementation of the most complex component of a high-performance FIX pricing service, providing pricing to all downstream FX pricing and trading services.
- Consulted/paired with industry leaders to implement Continuous Delivery on our team; utilized thorough testing + TDD, pair programming, small+frequent PRs, incremental architecture and refactoring, optimizing test suites, builds, and pipelines for fast feedback, tickets+docs on the fly.
- Optimized a complex Java application for μs tail-latency, utilizing profiling, object pooling for garbage elimination, single-threading, NIO, many compression mechanisms. Exercising understanding and manipulating the JVM/OS/network/hardware interactions.

Cub3 Inc **June 2022 - August 2022**

Backend Engineer, Managed 1-2 Junior Devs

- Architected and wrote a proxied gRPC backend (including Solana blockchain services, 19 table primsa database, extensible permissioning system, grew 2k to 20k+ lines codebase) enabling custodial wallet and NFT management services.
- Facilitated 3 products with 1 million+ users at maturity, supporting team in securing latest funding round in a time of market uncertainty.
- Architected a distributed event processing system utilizing composable WASM binaries and a cloud cache layer.

Futrli **June 2019**

Data Science and QA Intern

- Learned to develop with TDD/BDD, wrote front-end integration tests with Selium, used terminals, shell scripting and TMUX.
- Experimented with different forecasting models on business expense data in Python with Pandas, Numpy and Matplotlib.

Projects

ML Classifier on an FPGA SoC with High-level Synthesis (Vivado Toolchain) **January 2024 - March 2024**

- Implemented a highly parallel streaming-based design with DMA, task-level pipelining, optimised hyperparameter storage layout, precision tuning, CORDIC for exponential approximation.
- Employed a systematic benchmarking and analysis approach to target bottlenecks, achieving the lowest latency of any Computing group.

Badger - Full-stack mobile app in Flutter, Go, and Python **October 2022 - January 2023**

- Created a mobile platform capable of analyzing cricket performance to enable talented cricketers from deprived areas to be scouted.
- Created a robust approach to produce 3D reconstructions of cricket scenes with OpenCV, Mediapipe, and Linear Algebra.
- Technologies used: OpenCV, Mediapipe, PnP Algorithm, gRPC, Dart, Flutter, Go-connect, Cloud Run, GCP, MongoDB, Flask

WACC - Compiler in Rust **January 2022 - March 2022**

- Wrote an efficient and memory-safe 7-stage optimizing compiler.
- Designed and implemented the four compiler stages for graph coloring register allocation, dramatically increasing execution speed of compiled executables through minimizing stack use; only group in the cohort to successfully implement.
- Created an extensible regression integration testing framework in Bash.

Pintos - Operating System in C **October 2021 - December 2021**

- Various kernel extensions including schedulers, user processes/program facilitation, system calls, virtual memory with paging.
- Honed my design skills by creating the full virtual memory architecture, enabling productive delegation to different team members and execution. Additionally allowing me to crisis manage when two of four group members experienced burnout.
- Designed a fine-grained concurrent solution allowing shared access of global virtual memory resources by different user processes.

Linux Tinkering **January 2021 - Present**

- Spent 400+ hours tinkering with and optimizing my Linux setup as a programming and working environment. Working with Arch, Nix, Ubuntu, Scripting, Cluster management, Containerisation; enabling me to quickly utilize new technologies and environments.

Skills Summary

Languages Rust, C, Java, Python, C++, Typescript, Javascript, Kotlin, Unix Scripting, English, Spanish (un poco)

Skills Continuous Delivery, TDD, Linux, Pipelines, Containerization, Git, VIM+Copilot+IDE Code Gen, Debugging, Scripting, JIRA, GCP

Interests Skateboarding, extreme sports, music, motorbikes, meditation, reading, socializing, travelling, finance, learning Spanish