Joshua Jenkins

BSc Computer Science

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Summary

Penultimate year student with interests in ML as well as skills in Imperative and Object-Oriented based languages. Enthusiastic about the future of Computer Science, evolution of technology, and the benefit to society that are associated with AI. Looking for an internship in an established team to build real-world experience and contribute to useful and impactful projects.

Skills

Languages: Python, Java, C, Javascript.

Technologies: Git, Linux (Arch, Debian), Bash, React, Tailwind, CSS.

Concepts: Imperative, Object-Oriented, Algorithms, MCTS, MiniMax.

Education

University of Bristol — Graduating in 2027.   *Sept 2024 – Present*
BSc in Computer Science.
- **Interests:** Computer Science Society, Group Hackathons / CTFs, AI Safety.

Whitchurch High School   *Sept 2022 – June 2024*
A*A*A with A* in Mathematics.

Projects

ML Prize, BrisHack — Environment Simulator — **Tools:** Java, JavaFX.   *Github* ⬈
- Won first prize for machine learning project, judged by lecturers and guests from established companies.
- Applied MCTS and Reinforcement Learning to model Predator-Prey Dynamics such as hunting, feeding, and breeding.
- Implemented Procedural Generation and Perlin Noise to generate a realistic terrain.

Scotland Yard AI — MiniMax, Multithreaded — **Tools:** Java, JavaFX.   *Github* ⬈
- Introduced Multi-threading to optimise the Game Tree and multiplied tree depth by a factor of 5.
- Heavily optimised to evaluate $\sim$ 100 million moves in $\sim$ 15 seconds.

Metadata Editor — **Tools:** Rust, Egui, ID3.   *Github* ⬈
- Developed a cross-platform metadata editor made in rust, using Egui, with ID3 and Symphonia for audio metadata.

Finger / HTTP Client — **Tools:** C, Finger, HTTP.   *Github* ⬈
- Implemented an efficient Finger/HTTP client in C, leveraging Unix manual pages to integrate standard library functions and system calls.

Personal Homelab — **Tools:** Pi-Hole, Glance, Zerotier, WOL.
- Deployed a personal Homelab on a Raspberry Pi to manage local network services, including Pi-Hole and Glance.
- Configured Zerotier for secure remote access and Wake-on-LAN to power on and control hardware remotely for AI and GPU-based tasks.

Experience

4th Place — *BAE Systems CTF*   *Bristol, UK*
                                                                                    18th Jan 2025
- Achieved fourth place, competing against students from all years of Computer Science at Bristol whilst in first year.