

Cyrus Knopf

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Education

- 2022–25 **B.Sc. (Hons)** Computer Science at the University of Manchester (achieving First Class)
Algorithms & Data Structures, System Architecture, Machine Learning, Compilers & Assembly, Databases
- 2019–21 **A-Levels** Mathematics, Further Mathematics, Physics

Experience

- 2023– **Product Engineer at Optimistics**
- **Developed** for an SEO company which served a top 10 UK travel insurance broker
 - Frequent **communication with management** to understand delivery expectations
 - Adviser on **microservices, containerised deployment**, and large language models

Projects

- C++  **Chess Engine with Monte Carlo tree search**
- Implemented a **bitboard** chess engine and **Monte Carlo tree search** from scratch
 - Leveraged **Google Test** in **test driven development**
 - Performed optimisations motivated by **profiling** and **Google Benchmark**
- OCaml  **Functional Data Structures**
- Implemented various **data structures** in **functional OCaml**
 - Utilised Jane Street's `ppx_expect` testing libraries to ensure correctness
 - Used OCaml's **modules** and **signatures**; followed preference for **immutability**
- TypeScript  **Obsidian Plugin: Smart Tasklists**
- Contributed an **open source** plugin to the Obsidian ecosystem
 - Used the Obsidian **API** to interface with the note-taking application
 - Improved the features of Markdown to benefit my daily workflows

Awards

- 2024 1st: PeakAI Hackathon
- 2023 Top 3: Bloomberg BPuzzled Manchester
- 2023 1st: Great Uni Hack