

Cyrus Knopf

Portfolio: cyrusknopf.com

Github: github.com/cyrusknopf

Email: cyrus.knopf@gmail.com

LinkedIn: linkedin.com/in/cyrusknopf/

EDUCATION

- **University of Manchester** Manchester, UK
• *BSc Computer Science* September 2022 - Present (2025 Graduation)
Currently achieving a First Class Honours
Courses: Algorithms & Data Structures, System Architecture, Compilers & Assembly, Database Systems, Machine Learning
- **Worthing College** Worthing, UK
• *A-Levels: Further Maths, Maths, Physics* Sep 2019 - Jun 2021

EXPERIENCE

- **Optimistics** Remote
• *Product Engineer - Freelance (Part-time)* Jun 2023 - Present
 - Brought AI solutions to an SEO company serving clients such as a UK top 10 travel insurance broker.
 - Extensively leveraged large language models, using frameworks such as LMQL and guidance.
 - Developed agile solutions using web technologies to deliver ergonomic products.
- **NHS** Worthing, UK
• *Food Service Assistant (Part-time)* Jan 2022 - Sep 2022
 - Worked independently on hospital wards with strict health and safety regulations in a patient-facing role.
 - High responsibility role, including working with vulnerable patients and regular sanitation responsibilities.

SKILLS SUMMARY

- **Languages:** Python, Java, ARM Assembly, Haskell, OCaml, Typescript, C/C++
- **Frameworks:** Django, Flask, NodeJS
- **Tools:** Git, PostgreSQL, MySQL, Docker

PROJECTS - ACADEMIC & PERSONAL

Obsidian Plugin: Smart Tasklists | Typescript, JavaScript, Obsidian API

- Implemented a recursive algorithm in TypeScript to improve vanilla Markdown tasks
- Leveraged the Obsidian API to create a responsive plugin
- Utilised correct Git workflows and version control

Chess AI (Work in progress) | Java (Maven, JUnit 5)

- Aims to utilise Monte Carlo tree search to power an AI chess agent
- Currently implementing bitboards using bitwise operations to optimise moves and decision making
- Self managing a sizeable Maven Java project

Naive Bayes Spam Filter | Python, Jupyter

- Implemented a Naive Bayes Classifier from the ground up to classify words and messages as spam or not spam with 93% accuracy
- Utilised libraries such as Matplot, Pandas and Functools
- Achieved 90% in university assignment with this foundational machine learning model.

PROJECTS - COMMERCIAL

AI Title Tag Generator for Real Estate | Google AppScript, Bootstrap, jQuery

- Developed solution for use with 4 real estate companies to leverage AI for efficient title tag generation
- Seamless user experience, fully integrated the service into Google Sheets via Google AppScript
- Effective communication with manager to ensure requirements are delivered upon, involving active listening and effective written communication.

HONORS AND AWARDS

- 1st: Great Uni Hack 2023 - Web Design Challenge
Finished 1st out of 54 teams at a hackathon attended by multiple UK and international universities.
- Joint 3rd: Bloomberg BPuzzled 2023 Manchester
- Silver: UKMT Senior Challenge