Alfred Jijo

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Profile

Motivated software engineering student specializing in system programming and low-level application development. Experienced in designing robust, high-performance software tools, libraries, and automation for Linux and Windows platforms. Adept at leveraging C, C++, and Python for systems integration, resource management, and hardware interfacing. Proactive problem solver with a strong attention to detail and a passion for code optimization, reliability, and developer tooling. Seeking opportunities to innovate on core system components, improve performance in large-scale environments, and deliver impactful solutions that drive engineering excellence.

Technical Skills

Languages: Python, C, C++, Go, Java, SQL, PHP

Frameworks: JUnit Databases: MySQL

Tools: Git, JetBrains IDEs, Win32 API **Platforms:** Raspberry Pi, Windows, Linux

Spoken Languages: English: fluent

Leadership Experience

Software Engineering Team (SET) *Co-Lead (Project Hyperion)*

Liverpool John Moores University Oct 2025 - Present

- Co-leading and mentoring a team of 18 student developers in a multicultural software engineering environment.
- Guiding the architecture and development of Project Hyperion, an automated sky-monitoring and control system.
- Translating high-level goals into actionable requirements, managing team tasks, and overseeing the integration of hardware, software, and data pipelines.
- Project leverages Raspberry Pi (5/Zero) hardware, Pi Cameras, remote server data transmission, and astronomical coordinate tracking (RA/DEC) using Python and astropy.

Projects

ASMR-Lang CLI / Language Design

HackNotts '25 GitHub | Devpost

- Co-designed and prototyped asmr-lang, an assembly-inspired programming language for HackNotts '25 (20+ teams). Focus: mapping program operations to generative audio output.
- Applied foundational compiler/interpreter theories to design a Turing-complete language specification.
- Managed team code and design contributions via Git in a high-pressure, collaborative setting.

Discord Timestamp Generator *Native C & Win32 API*

Personal Project GitHub

- Architected a hybrid GUI/CLI utility in pure C for interactive, automated, and conversion workflows.
- Engineered as a zero-dependency native solution interfacing directly with the Win32 API (UI, clipboard, time-conversion logic).
- Implemented event-driven programming via WindowProc, solving timestamp conversion for communities with thousands of users.

csview.h — C99 CSV Library Single-file Header, MIT License

Personal Project GitHub

- Authored a portable, zero-dependency CSV library for reading, writing, and displaying tabular data in C.
- Engineered automatic memory cleanup using GCC/Clang attributes, plus manual management for cross-compiler support.
- Provides formatted CLI table output, clear API, and comprehensive in-code documentation.
- Adopted in academic and hobbyist projects; designed for ease of integration and reliability.

UK Road Performance Data System *Java Console Application / Agile*

University Group Project Score: 73% (First-Class)

- Achieved a 73% First-Class mark for a 100-weighted project in a diverse, 5-person team.
- Practiced Agile (Scrum); participated in weekly sprints, client consultations, code reviews, rotating team roles, and used Trello for workflow.
- Developed a Java application to parse, process, and report DfT road performance data.
- Delivered file I/O, user-defined filtering with disambiguation, and summary report generation to support data-driven decision-making.

Hotel Room Tax System Java Console Application

University Coursework Score: 93% (High First-Class)

- Achieved a first-class mark of 93% for a university project focused on Java and computational logic.
- Developed a console application to process hotel room data and calculate taxes from rooms.txt.
- Implemented robust file I/O, user input, conditional logic, and iterative data processing for financial reports with running totals.

Education

Liverpool John Moores University *BSc in Software Engineering*

Liverpool, England Est. Graduation: June 2028

Relevant modules: Data Structures & Algorithms, Web Development, Database Systems.

· First Year: Achieved First Class.

Cronton Sixth Form College *A-Level Computer Science, Mathematics & Physics*

Widnes, England
Physics Graduated: June 2024

Relevant modules: Data Structures & Algorithms, Computing Systems, Databases & SQL.