

AFONSO MANATA

✉ afonso.manata.cruz@gmail.com

🌐 [linkedin/afonso-manata](https://www.linkedin.com/in/afonso-manata)

🐙 github.com/AfonsoManata

🌐 afonsomanata.com

Education

Instituto Superior Técnico

Bachelor of Computer Science and Engineering

Expected Graduation: June 2027

Lisbon, Portugal

- **Relevant Coursework:** Data Structures and Algorithms, Operating Systems, Object-Oriented Programming.

Work Experience

Promptly Health

Software Engineer Intern

September 2025 – December 2025

Remote

- Architected and managed the lifecycle of **6+ AWS RDS services** inside the **Kubernetes Cluster** using **Crossplane**.
- Implemented a **Go templating** function, improving **readability** and reducing **infrastructure** complexity by **20%**.
- Improved **security** by **100%** by moving **AWS ElastiCache** credentials into multiple **Kubernetes Secrets**.
- Enabled **multi-environment** support, improving deployment **scalability** and reducing **duplication**.

Noesis

Software Engineer Intern

July 2025 – September 2025

Remote

- Engineered a **N8N Workflow** that generates **cybersecurity reports**, saving **2+ weeks** annually for **15+ engineers**.
- Built **Python/JavaScript** scripts that generate **adaptable graphs**, eliminating the **costs** of using **external APIs**.
- Implemented **multi-threading** in N8N reducing **runtime** by **67.2%**.
- Developed multiple **automation** scripts to make scheduled **queries** to an **ElasticSearch**, which eliminated the need for **manual input** and reduced the number of **queries** by **66.6%**.

Junitec

Software Engineer

February 2025 – September 2025

Lisbon, Portugal

- Worked alongside **top engineers** from my university at **Europe's Best Junior Enterprise**, which generated over **€200k in annual revenue** by building solutions for leading enterprises.
- Developed **real-time** collaboration features using **WebSockets in Go**, reducing manual paperwork by **60%**.
- Wrote **backend** logic in **Go** for **SQLite integration**, streamlining the management of **20k+ stock items**.
- Engineered a **full-stack** inventory management with a **React.js** interface and a **Go backend**, containerizing the entire project with **Docker**, which streamlined operations for a non-profit supporting **40+ abandoned children annually**.

Projects

JustAQuote | [Source Code](#)

Java | Spring Boot | REST API | Redis | PostgreSQL | Docker

- Designed and implemented a **REST API** using **Spring Boot**, enabling **scalable** delivery of daily motivational quotes.
- Optimized **API** performance with **Redis caching**, reducing response latency from **360ms** to **< 5ms**.
- Engineered the **database schema** using **PostgreSQL** and containerized the services with **Docker**.

GemSolver | [Source Code](#) | [Demo Video](#)

JavaScript | Node.js | Gemini API

- Engineered an **AI-powered** screenshot-to-answer tool with **Node.js** and **Gemini API**, reducing search time by **75%**.
- Processed **200+ screenshots** in one semester, automating my study workflow and contributing to a **top 1% grade**.

Library Management System | [Source Code](#)

Java | Design Patterns

- Architected a Library Management System ensuring **100% abstraction** of business logic by leveraging decoupled code.
- Implemented robust **design patterns** including **Strategy** for workflow orchestration, **Observer** for UI updates, **Command** for request handling, and **Visitor** for core logic traversal, reducing feature integration time by **40%**.
- Developed exception handling for **10+ workflows** preventing invalid operations and ensuring zero **runtime errors**.

Technical Skills

Languages: Python, Java, Go (Golang), SQL, C/C++, JavaScript, HTML/CSS.

Frameworks & Libraries: PostgreSQL, Spring Boot, Redis, REST APIs, SQLite, Elasticsearch, Node.js, React.js.

Developer Tools & Cloud: Git, Docker, AWS, Kubernetes, Crossplane, ArgoCD, Postman, Neovim, Unix/Linux.

Certifications & Awards: AWS Cloud Essentials, IBM Full-Stack JavaScript Developer, City's Best High School Student.