

Diogo Miguel Carvalho Silva

Junior Software AI Engineer

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Profile

Software Engineering graduate from the Polytechnic Institute of Porto with hands-on experience building AI-powered systems in production. During a curricular internship at DevScope, designed a Retrieval-Augmented Generation (RAG) pipeline, a Python MCP server integrated with AI agents, and an LLM-powered chatbot for an in-house documentation platform. Also applied computer vision (YOLOv8) in an academic setting. Looking for a Junior Software AI Engineer role to keep building applied AI systems end-to-end.

Professional Experience

Software & AI Engineer | DevScope | Curricular Internship

Feb - Jun 2026

- Designed and built a Retrieval-Augmented Generation (RAG) pipeline from scratch - chunking, embeddings, vector storage and semantic search - to ground an LLM-powered chatbot in internal documentation.
- Built a Python MCP (Model Context Protocol) server integrated with AI agents, exposing tools that let the chatbot query and act on the documentation platform.
- Developed a conversational chatbot in React 19, covering the full cycle from LLM/API integration to the UI component.
- Implemented a multi-provider architecture in ASP.NET Core 8, allowing the platform to swap LLM and embedding providers without touching business logic.
- Made architecture decisions autonomously, with periodic validation from cross-functional teams, resulting in an operating cost reduction of roughly 100x compared to GitBook.
- Authored the technical documentation and final project report, including requirements, architecture, and AI design decisions.

Technical Support | Continental | Curricular Internship

2023

- Supported hardware and software incidents, configured equipment, and resolved issues in corporate applications.

Academic Projects

Carbon Emission Calculator | Software Engineering II

2024/2025

- Java application to calculate carbon emissions across logistics chains, developed in a team using SCRUM and a TDD approach.
- Unit testing with junit 5, coverage analysis with Jacoco, static code inspection with PMD, and continuous integration on GitLab.

LevelEstate - Real-Estate Management Platform | Software Development Lab

2025/2026

- Real-estate platform with a gamification system (points, rankings, badges) to reward agents beyond traditional commissions; .NET Core backend, Angular frontend, Kotlin mobile app; SCRUM with 2-week sprints.

Technical Skills

AI / ML & GenAI:	RAG pipelines, embeddings, semantic search, LLM integration, prompt engineering, MCP (Model Context Protocol), AI agents, computer vision, YOLOv8, Streamlit
Development:	Python, C# / .NET Core, TypeScript, JavaScript, React, Angular, Node.js, Java, Kotlin, SQL Server
Software Engineering:	SCRUM, TDD, Unit & Integration Testing, CI/CD, Git/GitLab, UML, BPMN, Requirements Engineering
Cloud & Infrastructure:	Azure (Blob Storage), version control and continuous integration pipelines

Education

Bachelor's Degree in Software Engineering Polytechnic Institute of Porto	2023 - 2026
IT Systems Management and Programming OFICINA - Escola Profissional Nun'Alvres	2020 - 2023

Additional Training and Certifications

Model Context Protocol: Advanced Topics Anthropic	Jul 2026 Credential ID: m2s7mqqtbjbv
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