



Álvaro Carmona Applied AI / Backend-Focused Full-Stack Developer alvcarmona

 Tampere, Finland  alvarocarmonabasanez@gmail.com  LinkedIn Profile

Profile

I'm a software engineer with 10+ years of experience, focused on backend systems with AI built into the product workflow rather than bolted on. I design and ship LLM-native services end-to-end: an agent platform on hexagonal architecture with a provider-agnostic LLM layer, exposed over FastAPI and an MCP server, instrumented with OpenTelemetry and covered by unit, E2E and mutation tests. That sits on a decade of production work — APIs, SDKs, data pipelines processing millions of records, and migrations like Heroku to AWS/Kubernetes. Agentic coding tools (Claude Code, OpenCode) are my default way of building, while I still own system design, testing and production tradeoffs myself. I've worked in English throughout my career and dealt directly with clients as a freelance consultant. Frontend and product design round out the range when a feature needs taking all the way to the UI. Based in Tampere; Finnish at B1.

Skills

AI & Agents: Python, LangGraph, LangChain, OpenAI SDK, MCP, Claude Code, OpenCode, Agentic workflows, Self-hosted LLM inference, Ollama, LiteLLM, Langfuse

Backend &

Architecture: FastAPI, Node.js, Java, Spring Boot, Hexagonal architecture, Microservices, REST APIs, SDK development

Data & Infrastructure:

PostgreSQL, SQLAlchemy, Alembic, MongoDB, Docker, Kubernetes, AWS, Ansible, Traefik

Production &

Observability:

OpenTelemetry, Grafana, Prometheus, Loki, pytest, Mutation testing, CI/CD, Code review

Frontend & Product:

TypeScript, React, Redux, Figma, UX/UI, Team coordination

Languages

 Spanish (native)

 English (professional)

 Finnish (conversational (B1))

Education

B.Sc. Computer Engineering

Universidad de Deusto, Bilbao (2010 - 2015)

Experience

Freelance Consultant & Self-Directed Projects, Independent / Self-Directed

March 2025 – Present |  Tampere + remote

- Built an LLM agent platform (Python, 14k LOC): hexagonal architecture enforced in CI by import-linter, LangGraph agents, and a provider-agnostic LLM layer spanning OpenAI, Ollama, LM Studio and LiteLLM. One domain core exposed through FastAPI, an MCP server and chat adapters.
- Ran it like production software: async SQLAlchemy with Alembic migrations, OpenTelemetry traces, metrics and logs into Grafana, Loki and Jaeger, plus unit, E2E and mutation testing.
- Self-hosted AI infrastructure as code: 34 Ansible roles deploying an inference stack (Ollama, LiteLLM, Langfuse, open-webui) behind Traefik on a zero-trust Docker network, monitored with Prometheus/Grafana/Loki and CI-tested with Molecule.
- Agentic development workflows: custom Claude Code skills and subagents for an infrastructure-as-code repo, including an automated PR review that delegates Ansible roles to a specialist subagent and posts findings back to Gitea.
- AI consulting for SME/startup clients: LLM workflow design and tool integration, plus training individuals on AI usage and automation with measurable results.

Full-Stack Developer, Wirepas

March 2024 – March 2025 |  Tampere + remote

- Wireless connectivity software for industrial IoT. Built dashboards with interactive charts and geolocation visualization (React, TypeScript, GeoJSON).
- Product requirement gathering and Agile project management (Jira).

Full-Stack Developer, Dear Lucy

December 2020 – August 2023 |  Espoo + remote

- Powerful analytics platform empowering users to efficiently manage sales and revenue data. Pivotal role in creation and enhancement.
- Designed internal SDK, managing tech debt. Migrated JS→TS and infrastructure Heroku→AWS/Kubernetes.

Full-Stack Developer, Lookiero

December 2018 – October 2020 |  Bilbao + remote

- European fashion startup (Scrum). Angular.js→React migration, BFF with Spring Boot, microservices. Built payment funnel (Stripe) and an A/B testing platform from scratch.
- Collaboration between stakeholders (product, marketing, tech) in a fast-paced environment, on a technology team that grew from 10 to 60 people in under 2 years.

Computer Scientist, European Spallation Source

November 2016 – August 2018 |  Lund

- Requirement analysis and software design. Python data science solutions and fullstack web applications (Django, React.js). Managed DevOps processes.

Software Developer, Isifuera SL

February 2015 – October 2016 |  Bilbao

- Software design and development (Node.js, Angular.js, MongoDB). DevOps and Linux administration.