

Fabián J. Murgado Cáceres

Software Engineer

📍 Zaragoza, Spain (EU citizen · Open to relocation)

🔗 github.com/FabiMur | [linkedin.com/in/fabianmurgado](https://www.linkedin.com/in/fabianmurgado) | ✉ fabian@fabianmurgado.com | 📞 +34 653 075 113

WORK EXPERIENCE

Software Engineer - Hiberus | LLM Agents, LiteLLM, Databricks, AWS Feb 2026 – Present

- Built a multi-agent LLM code-generation pipeline to migrate 15 legacy Qlik applications (97K lines of QlikScript) to Databricks, producing 402 PySpark notebooks and 629 tables, with all 15 applications successfully deployed to production.
- Automated nightly data refreshes across 16 Databricks jobs, with validation against legacy outputs.
- Built and maintain a multi-tenant LLM gateway using LiteLLM and vLLM, enabling two other consultancies working for the same client to build RAG applications, agents and chatbots using self-hosted models, with per-team API keys, rate limits and tested tenant isolation.

Computer Science Instructor - CESUR Oct 2024 – Feb 2026

- Designed and delivered 9 hands-on courses in Linux, networking, databases and programming to 3 student groups, creating all teaching materials, lesson plans and practical activities, and building virtualised labs.

Security Engineering Intern - SICE | Python, C, C++, Bash Jun 2024 – Oct 2024

- Built Python and C++ benchmark suites for 14 classical and post-quantum cryptographic configurations, evaluating runtime and key-size trade-offs to assess post-quantum migration costs.

Software/ML Engineering Intern - BSH | MATLAB, Python, C, scikit-learn Sep 2023 – Jun 2024

- Designed and built an automated experimental platform in MATLAB, integrating C and Python to synchronise a power supply, induction hob, fans, temperature sensors and an oscilloscope for controlled testing and data acquisition.
- Implemented concurrent hardware orchestration, error handling, fail-safe behaviour and dashboards for monitoring experiments, reducing sensor data collection time from weeks to hours (50× faster).
- Evaluated neural networks and XGBoost on existing electrical time-series data to assess cookware classification feasibility, identifying dataset limitations and defining additional data collection requirements.

Software Engineering Intern - SAICA | SAP, ABAP, SQL Nov 2022 – Jun 2023

- Cut SAP (ABAP) and SQL query runtimes by 30% and automated repetitive operational workflows through scripting.

PROJECTS

Claus Agent | Rust, RAG, MCP, Docker [GitHub \(demo in README\)](#)

- Built a terminal coding agent in Rust with a ratatui TUI, a multi-agent loop with 11 tools, permission-gated shell execution, and custom Anthropic SSE, LSP and MCP clients.
- Implemented hybrid code retrieval (tree-sitter chunking, Qdrant embeddings, BM25, reciprocal rank fusion) with incremental re-indexing on file change.

Rusty Renderer | Rust, Rayon, Computer Graphics [GitHub \(demo in README\)](#)

- Built a multithreaded path tracer in Rust with BVH acceleration, physically based materials, textures and global illumination, rendering Cornell-box scenes with depth of field and antialiasing.
- Cut render time 6× on 10K-primitive scenes with a BVH, and scaled near-linearly across cores with Rayon (91% efficiency).

Minimal LLM | Python, PyTorch, AWS, Docker, Hugging Face [GitHub \(demo in README\)](#)

- Implemented a 393M-parameter LLaMA-style Transformer from scratch in PyTorch (RMSNorm, SwiGLU, RoPE, grouped-query attention, KV cache) and pretrained it on 16.5B tokens (34K steps) on a single 24GB Spot GPU, with bf16, gradient checkpointing, and S3 checkpoint sync with automatic resume across Spot reclaims.
- Fine-tuned it into a chat model on 109K ChatML conversations with loss masking on non-assistant tokens (val loss 1.49 to 1.17), with a multi-turn chat CLI and Dockerized training on EC2, with images stored in ECR and checkpoints in S3.

EDUCATION & CERTIFICATIONS

BSc in Computer Science - University of Zaragoza [Thesis](#) | 2020 – 2025

Computing track (AI, ML, algorithms). Thesis on the implications of quantum computing for modern cryptography.

Certifications: Google Cloud Professional ML Engineer, AWS GenAI Developer Professional, AWS ML Engineer Associate.

TECHNICAL SKILLS

Programming Languages	Python, Rust, SQL, Bash, C++, Go, JavaScript
Software Engineering	Data structures and algorithms, OOP, REST APIs, concurrency, automated testing, CI/CD
AI/ML	PyTorch, Hugging Face, RAG, vector databases, LLM agents, MCP, LiteLLM, vLLM, Databricks, PySpark, pandas, NumPy, scikit-learn
Infrastructure	Docker, Kubernetes, AWS, GCP, Linux, Git
Languages	Spanish (native), English (C1 Cambridge)