

Micah Shiels

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Location: Spain | Right to Work: EU & UK (Unlimited)

SUMMARY

Backend Software Engineer who scaled AI content pipeline 10x and reduced core database execution times by 90%. Advanced in high-performance Python (FastAPI, Polars) and AI-powered backends (Vertex AI, PostgreSQL). Native English and C2 Spanish speaker with a track record of automating and optimising complex data workflows.

EXPERIENCE

Mid Software Engineer (Promoted from Software Engineer, November 2025) | StudyHall AI | July 2022 – February 2026 | London, UK (Remote)

- Re-engineered a production Vertex AI-based EPUB processing pipeline by introducing Redis caching, eliminating race conditions, optimising SQL queries and database connections, migrating data processing from Pandas to Polars, and removing redundant data loading, **achieving a 10x increase in document throughput (from tens to hundreds per hour) while enabling concurrent processing of high-volume content.**
- Independently maintained and optimised the company's primary PostgreSQL database, reducing execution time of complex SQL queries by approximately **90%**.
- Developed and optimised FastAPI REST backend services supporting planning, assessment, reporting, module generation and examination workflows **used by thousands of users.**
- Designed and implemented Python data ingestion pipelines replacing legacy VBA workflows, reducing content ingestion time by approximately **90%**.
- Reduced seeder runtime **from hours to minutes** by refactoring N+1 queries in a TypeScript Postgres-to-MongoDB pipeline.
- Developed internal tools using Retool and Streamlit, automating repetitive workflows for the Curriculum / Data team and aided in decision-making through dashboards.
- Mentored junior engineers through code reviews and technical guidance, promoting engineering best practices and improving code quality.

English Teacher (TEFL) | Your Language Club Getafe | October 2021 – July 2022 | Madrid, Spain

- Delivered over 400 English lessons, strengthening communication skills and the ability to explain complex concepts to diverse audiences.

Database Administrator | Ministry of Furniture | October 2017 – October 2021 | Neath, UK

- Independently maintained and optimised MySQL and Microsoft SQL Server databases supporting over 6,000 products and 300,000+ product variants.
- Reduced annual catalogue update time by approximately 80% by automating manual processes using SQL and VBA.

SKILLS

- **Computer Languages:** Python, SQL, PL/SQL, TypeScript, JavaScript, VBA, HTML, CSS, Neo4j Cypher
- **Frameworks:** FastAPI, Pydantic, Numpy, Pandas, SQLAlchemy, SQLAlchemyModel, BeautifulSoup, Django, Astro, Tailwind
- **Databases:** PostgreSQL, MySQL, MongoDB, Redis, Neo4j
- **Tools:** GitHub, Docker, Google Cloud, Sentry, Retool, Streamlit, JIRA, Claude Code, Gemini CLI, Ollama, Codex, Cursor
- **Natural Languages:** English (Native), Spanish (C2), Portuguese (B1), German (A1)
- **Certifications:** DELE C2 Spanish, TEFL Distinction

PROFESSIONAL DEVELOPMENT

February 2026 – Present

- Built and deployed a personal portfolio website (micah.es).
- Completed advanced training in System Design, Software Architecture, SOLID principles and Data Structures & Algorithms.
- Continued developing German and Portuguese language skills.