Alberto Morón Hernández

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Software engineer with a product and commercial mindset. At ease across the stack and at home in cross-functional teams. Keen on robust APIs, DevOps practices and ensuring all disciplines have a seat at the table. I use automation and consistency to enable teams to focus on delivery.

Architect	*Toolchain*	*Test*	*Develop*	*Deploy*	*Observe*
C4	uv / poetry	pytest	Python	GitHub Actions	structlog
structurizr	ruff / flake8	nox / tox	Django	Release Please	py-spy
mermaid	pre-commit	coverage.py	FastAPI	Google Cloud	django-silk
	Docker	Selenium	Pydantic	Digital Ocean	Google Analytics
	Bash	Playwright	Postgres	Terraform	

EXPERIENCE

Senior Software Engineer
Sep 2022 – present

University of Cambridge (DevOps division) — *Cambridge & remote, UK*

- Write and peer-review code across the stack: Python (Django, FastAPI), Terraform (Google Cloud), Bash & YAML (Docker, CI/CD), TypeScript (React). Modular code for reuse across projects & teams.
- Accountable for the performance & stability of data pipelines and Django webapps that process X0,000 events per day, serve 30,000 users worldwide and drive £50m p.a. of tuition fee revenue.
- Use test-driven development to increase confidence in the codebase and make change easier. Unit tests (pytest) through to end-to-end (Playwright). Use coverage.py to spot gaps in the test suite.
- Remote-first environment: developed ability for autonomous & asynchronous work, self-discipline and time management. Learned to over-communicate, signal intent and raise blockers promptly.
- Tenfold performance improvement of a read-heavy service's queries. Achieved by inspecting SQL query plans, refactoring Django ORM query construction and using Postgres aggregate functions.
- Collaborate with product managers, user researchers, business analysts and engineers on data-driven and cloud-first products. Use Agile methods to discover user needs and set priorities.
- Create architecture diagrams (C4) to plan with the team, de-risk and estimate the cost of change.
- Build observability into services and use data for impactful changes: both broad (product roadmaps from user analytics) and targeted (performance improvements from code profiling).
- Co-lead interviews for software engineers. Mentored a junior colleague from frontend to fullstack.

Software Engineer
Apr – Sep 2022

UKRI Young Innovator programme

- Grant to productionise my university research. Trying (and failing) to launch a product taught me to deploy early & frequently and reduce friction to incorporate user feedback & iterate faster.

Software Engineer
Feb 2019 – Apr 2022

Wealth Club (investment brokerage, SME) — *Bristol, UK*

- Enabled investment marketplace website to grow 94% YoY and handle 10x traffic spikes (Wagtail CMS, Django). Used serverless Cloudflare Workers to halve the CDN bill and increase SEO score.
- Resource-constrained startup environment. Learned to wear many hats, understand needs across disciplines and wrote software to solve these, balancing quality & speed.
- Rapid iteration of in-house CRM, allowing multiple financial products to launch per month.
- Analysed investment and sales data (numpy, pandas, D3.js) to inform commercial decisions.

Junior Developer   Jun 2017 – Feb 2019
Nomensa (UX & development consultancy)   *Bristol, UK*

- Part of a team of user researchers, designers, developers, and testers building a learning platform for the NHS.
- Used JavaScript service workers to enable the webapp to work offline in operating theatres.
- Agency environment: learned to context-switch effectively and negotiate priorities with stakeholders.

OPEN-SOURCE / SIDE PROJECTS

pycliché & djereo   github.com/albertomh/pycliche | github.com/albertomh/djereo

Python & Django project templates with opinionated tooling. Automates toil – standards enforced via pre-commit hooks, reusable pipeline tasks, release automation – to streamline feature development.

DepositDuck & draLLaM   github.com/albertomh/DepositDuck | github.com/albertomh/draLLaM

Using retrieval-augmented generation (RAG) to guide tenants through deposit disputes. FastAPI & Pydantic for web service, Ollama for containerised language models. Embeddings and vector similarity in Postgres.

EDUCATION

The University of Manchester   2014 - 2017
B.A., Linguistics – First Class Honours   *Manchester, UK*

Research on paraphrasing verbal metonymy via computational methods. Supported by an Amazon Educate grant. Awarded the 2017 Q-Step Prize for best quantitative dissertation. https://arxiv.org/abs/1709.06162

University of Massachusetts, Amherst   2016
Computational Linguistics (year abroad) – 3.8/4.0 GPA, Dean's List   *Massachusetts, USA*

King's College School, Madrid   2000 - 2014
IGCSEs & A-Levels   *Madrid, Spain*

Head Boy | Debate Society | Scholarship for Academic Excellence