

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.

<i>Architect</i>	<i>Toolchain</i>	<i>Test</i>	<i>Develop</i>	<i>Deploy</i>	<i>Observe</i>
C4	uv / poetry	pytest	Django	Terraform	structlog
structurizr	ruff / black	nox / tox	FastAPI	GitLab CI/CD	GCP Alerts
mermaid	pre-commit	coverage.py	Pydantic	GitHub Actions	Google Analytics
	just / make	Selenium	SQLAlchemy	Release Please	py-spy
	Bash	Playwright	Alembic	Google Cloud	django-silk

EXPERIENCE

Senior Software Engineer

University of Cambridge (DevOps division)

Sep 2022 – present

Cambridge & remote, UK

- Write and peer-review code across the stack: Python (Django, FastAPI), Terraform (Google Cloud), Bash & YAML (CI/CD), TypeScript (React). Modularise code for reuse across projects and teams.
- Use TDD to increase confidence in the codebase and make change easier. Unit tests (pytest) through to e2e (Playwright). Use coverage.py to spot gaps in the test suite.
- Building services to bring about the digital transformation of the University's undergraduate admissions process. Serve 30,000 users worldwide and drive £50m p.a. of tuition fee revenue.
- Create architecture diagrams (C4) to plan with the team, de-risk and estimate the cost of change.
- 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 iterate.
- Re-architected applicant data pipeline to reduce processing times and decouple Python services (auth, data, reporting). Event-driven solution serving tens of thousands of daily data updates during peak periods and scaling down to zero for cost savings during quiet periods.
- Build observability into services and use data to inform impactful changes: both broad (product roadmaps) and targeted (performance improvements).
- Made deployments more stable and frequent by adopting DevOps practices (containers, IaC, CI/CD).
- Keep systems secure via vulnerability scanning and automated dependency updates. Run SAST & tfsec on commit and in pipelines.
- Co-lead interviews for software engineers. Mentored a junior colleague from frontend to fullstack.

Software Engineer

UKRI Young Innovator programme

Apr – Sep 2022

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

Software Engineer

Wealth Club (investment brokerage, SME)

Feb 2019 – Apr 2022

Bristol, UK

- Enabled investment marketplace website to grow 94% YoY and handle 10x traffic spikes. Used serverless Cloudflare Workers (TypeScript) to halve the monthly CDN bill and increase SEO score.
- Rapid iteration of in-house CRM (Java), allowing multiple financial products to launch per month.
- Analysed investment and sales data (numpy, pandas, D3.js) to inform commercial decisions.

Junior Developer

Nomensa (UX & development consultancy)

Jun 2017 – Feb 2019

Bristol, UK

- Part of a team of UX researchers, designers, and developers building a learning platform for the NHS.
- Introduced JavaScript service workers to enable the webapp to work offline in operating theatres.

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