

J. Diogo Fernandes C.

SOFTWARE ENGINEER

☎ (+44) 7805839949 | ✉ diogofernandescon@gmail.com | 🏠 diogo.space | 📱 diogofernandesc | 📺 diogofernandesc

Experience

NOVA Wealth (Previously Octopus Wealth)

London, UK

SOFTWARE ENGINEER

July 2021 - Current

- Scaling up tech from the ground up to automate the financial advice process.
- Technical lead for a migration to an AWS Cognito, OpenID Connect based core authentication system:
 - Support for both internal Salesforce federated login and external client facing products.
 - Migrated legacy customer portal login with SMS MFA support.
- Co-architecting and co-leading the development of a ledger microservice managing ~£200M worth of customer assets:
 - Key for reducing operations team manual load of cross system data entry by saving *hours* per client onboarding.
 - OpenID Connect based user-level authentication system supporting scope-based internal and external CRUD.
 - Building FCA compliant auditing with support for fast historic search.
 - Managing state consistency between Salesforce and external Postgres tables.
- Led the architecture and development of a DynamoDB <-> S3 document management tool:
 - Built fully audited CRUD capabilities to replace manual Dropbox process saving operations team *hours* of work.
 - Support semi row-level permission restrictions on requests to both DynamoDB and S3.
- Re-worked the version control and CI/CD process from the ground up:
 - Led migration of several codebases from Gitlab to Github.
 - Scaled Heroku CI/CD from a simple "push to master" single production environment to several microservices & docker-based environments.
- Built a caching layer from the ground up updating in near real-time to support legacy API data retrieval on customer portal reducing page load times by an average of 50% and up to 180% for certain data heavy customers.
- Built "Eve" - a slack based bot for desk/room bookings and automatic 3-4 person weekly catchups.

Octopus Investments - Labs

London, UK

SOFTWARE ENGINEER

Dec. 2019 - July 2021

- Migrated Octopus Investments client SSO to OpenID Connect with IdentityServer4.
- Built "aggregator" microservice in to service legacy cross system investment portfolios for +10,000 clients in milliseconds.
- Migrated infrastructure & DevOps from GCP to Azure with fully distributed log tracing:
 - Built infrastructure-as-code, automated, containerised CI, and zero downtime CD pipelines.
 - Stack included Azure App Service, Azure Container Registry & App Insights with Opencensus.

Teradata

London, UK

DATA ENGINEER

Sept. 2018 - Nov. 2019

- Improved and maintained Kafka & Solr based, automated document processing system for a leading Spanish bank processing more than 10,000 documents per hour. Maintained Java and Python based data processing microservices.

Fresh Relevance

Southampton, UK

BACKEND SOFTWARE DEVELOPER INTERN - UNIVERSITY 2ND YEAR SUMMER INTERNSHIP

Jun. 2017 - Sept. 2017

Virgin Media WiFi | Previously Arqiva WiFi

Hemel Hempstead, UK

SOFTWARE DEVELOPER INTERN - BIG DATA & MASS INGEST FOCUS - UNIVERSITY 1ST YEAR SUMMER INTERNSHIP

Jul. 2016 - Sept. 2016

Education

University of Southampton

Southampton, UK

BSC IN COMPUTER SCIENCE - FIRST CLASS HONOURS

Sept. 2015 - June 2018

- **Dissertation research project:**
 - Automating the fact-checking of interesting, relevant statements made by MPs on Twitter with SVM classifiers through automated NLP feature extraction and automated crowdsourcing.

Skills

DEVELOPMENT

- **Languages:** Python, Java, familiar with Typescript
- **Frameworks:** Flask, Tornado, Django, familiar with Next.js & React
- **Databases & Tools:** Postgres, Redis, RabbitMQ, DynamoDB, S3, Elasticsearch, MongoDB, Solr
- **DevOps:** AWS, Heroku, Github Actions, Docker, Azure, GAE
- Familiar with Kafka, Scala & Spark
- Familiar with Salesforce

LANGUAGES

- English - Bilingual proficiency
- Portuguese - Native proficiency
- Spanish - Professional working proficiency

ACADEMIC

- Report writing
- LaTeX
- Presentation skills

Interests

Simracing

- You can find me participating in PTRL - the top F1 simracing league in Portugal, a nice way to enjoy competitive racing and keeping in touch with people from back home.
- Also part of a small, casual portuguese simracing team where I help develop younger drivers and offer race engineer help on race day.
- I also enjoy casual sessions of iRacing, the top simracing simulator in the world where real world drivers like Max Verstappen drive, both competitively and for fun.

Swimming & Ultimate Frisbee

- Avid swimmer, something I do as a nice mental reset and to keep fit.
- Also play casual "pickup" sessions of Ultimate Frisbee.

Snowboarding

- A sport I've only recently picked up, loved and (slowly) getting better at.

References

Available upon request.