Duarte Frazão

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Software development and infrastructure enthusiast. Interested in building scalable distributed systems. Passionate about learning and solving complex problems.

EXPERIENCE

QBee   **Porto**
Quantum Finance Research Intern   *Jan 2021 - Aug 2021*

- Responsible for researching quantum computing algorithms applied to finance problems.
- Implemented a quantum algorithm to solve a portfolio management optimization problem using IBM's quantum platform. Demonstrated a 1.6 times speedup over the current standard and other significant improvements. Integrated complex finance constraints in the algorithm which was not accomplished before.
- The main challenge was working with a programming paradigm that is based on quantum physics. This was overcome by self-learning and building a strong foundation in both quantum algorithms and quantum physics.

EDUCATION

FEUP - Faculty of Engineering, University of Porto   **Porto, Portugal**
BSc and MSc Degree in Software Engineering   *Sep 2016 - Sep 2021*
Final Grade: 16/20

Certifications

Microsoft   **Porto, Portugal**
AZ-204 - Azure Certified Developer   *Dec 2021 - Feb 2022*
Final Grade: 18/20

Projects

Fintwit Sentiment - Twitter's finance community sentiment API   **Porto**
1 person   *Feb 2022 - March 2022*

- Developed a web app that provides a paid API product to help investors identify periods of euphoria and fear in the stock market by providing engagement and sentiment metrics from Twitter's finance community. API access keys can be purchased through a Stripe payment portal with fixed or pay as you go subscriptions.
- The main challenge was ensuring the quality of a complex architecture. This was overcome by automating the entire infrastructure with Infrastructure as Code and CI/CD pipelines.
- **Stack:** Stripe, Azure Functions, ARM Templates, Azure API Management, Azure Cognitive Services, Azure CosmosDB, Docker, Github Actions, Twitter API, NodeJS, Python ...

Are you Ok? - Animation based web app about environment statistics   **Porto**
7 people   *Sep 2019 - Jan 2020*

- Team leader of a Scrum-like team in the development of a web app project that provides environmental statistics through animations planned by a designer. Also responsible for infrastructure and DevOps.
- The main challenges were, on the management side, maintaining a healthy and productive team environment, and on the technical side, the need to have different remote environments for the team and the client, which was overcome by building CI/CD pipelines that automated the deployment and quality-management of the infrastructure.
- **Stack:** Docker, Gitlab-CI, Heroku, MongoDB, Jest, ReactJS, NodeJS

Languages

Portuguese: Native, **English**: Fluent, **Spanish**: Intermediate