Pedro Matos

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Skills

Programming Languages: Java, Kotlin, Scala, Python, SQL

Technologies: Docker, Postgres, Amazon AWS, Openshift, Terraform, MongoDB, Corda DLT, Gradle, SpringBoot

Others: Problem Solving, Hard-working, Teamwork, Business-Driven/Domain-Driven Design, Scrum, Agile

Spoken Languages: Portuguese (Native), English (C2), German (B1)

Education

University of Aveiro, Master's in Computer Science — September 2017 – June 2019

University of Aveiro, Bachelor's in Computer Science — September 2013 – June 2017

Experience

Software Engineer, SIX Digital Exchange – Zürich — August 2023 – Present

- Led the implementation of a fractionalized asset trading system on DLT, enabling portfolio rebalancing and increasing trading volume
- Enhanced post-trading workflows to allow clients to execute trades on behalf of others, boosting platform activity
- Added support for Partial Redemptions of bonds by enhancing the existing corporate actions module, boosting platform activity

Software Engineer, Avaloq – Zürich — January 2022 – August 2023

- Maintained and enhanced core platform components for financial instrument modeling and evaluation
- Improved a microservice integration with external modeling software for pricing exotic options types

Software Engineer, BMW Group – Porto — January 2021 – December 2021

- Designed and implemented a module capable of detecting and classifying sensitive data in large-throughput data pipelines using Named-entity recognition
- Built and maintained cloud-based data pipelines to feed vehicle metrics into Data Lakes

Publications

An energy and cost efficiency Model Predictive Control framework to optimize Water Supply Systems operation — January 2025

Ana Luísa Reis, A. Andrade-Campos, ***Pedro Matos***, Carlos Henggeler Antunes, Marta A.R. Lopes
10.1016/j.apenergy.2025.125478

Projects

Language Identifier — github.com/pdMa2s/fcm-language-identifier

- Developed a language identification program using finite-context models, where each model represents a language and can classify text snippets based on their linguistic patterns.
- Tools used: Java

Simplified search engine — github.com/pdMa2s/indexer

- A two-part system where one program builds an inverted index from a document corpus using a scoring method, and the other queries the index to retrieve results based on the same method.
- Tools used: Java, Word2vec

Text Generator — github.com/pdMa2s/fcm-text-generator

- Developed a finite-context model that learns linguistic patterns from a text corpus and generates new text in the same style
- Tools used: Java