

Experience

2020-2021 **Teacher**, *Escola Secundária de Gago Coutinho*, Lisbon

Courses: Computer Networks, Computer Architecture and Computer Programming.

- Created course's syllabus.
- Created custom materials and projects for every course, focusing on student's interests.
- Mediated negative effects of COVID-19 confinement by creating software that scored student's progress, fostering teamwork and competitiveness while distance learning.
- Coached students on their final graduation project.

2017-2019 **Software Engineer**, *Leadzai*, Lisbon

Languages: Python, Javascript, TypeScript

Technologies: Django, Postgres, Flask, GraphQL, React, React Relay, Redis, Google Cloud, Docker, Scrapy, SciPy, Git

- Founding team, helped shape Leadzai's product.
- Responsible for technical interviews and recruitment, represented the company at Web Summit 2017.
- Lead the development of core Leadzai's feature: an automated advertisement creation system using modern Natural Language Processing and Computer Vision techniques.
- Worked closely with data-science team and lead the design and architecture of several RESTful Web Services.
- Lead the development of Leadzai's distributed scraping and crawling system.
- Built and maintained GraphQL API.
- Refactored and created reusable front-end components, responsible for major improvements to Leadzai's architecture.

2017 **Software Engineer**, *Growin*, Lisbon

Languages: Scala, Java

Technologies: Akka, Akka HTTP, Akka Cluster, Akka Streams (Functional Reactive Programming), Docker, Git

- Developed distributed service for processing large amounts of real-time data.
- Created several benchmarks (wrk) and guaranteed the system's performance requirements.

Research

2017 **Shaper-GA**, *Genetic Algorithm approach to produce automatic designs for modular houses*

Supervisor: Ana de Almeida, Phd

- Developed novel genetic algorithm in Java and Scala, improving search time from several hours to minutes.
- Simplified the way architects interacted with the application by creating a domain-specific language (DSL) in Scala.
- Invited to GECCO 2018 - The Genetic and Evolutionary Computation Conference, Tokyo.

Projects

2016 **PlayFramework - ElasticSearch Module**, *Open Source Project*

Languages: Scala, Java

Technologies: Playframework, Git

- Created open source PlayFramework module.
- Maintained project and merged pull-requests.

2016 **ProgRock.app**

Languages: Golang, Python, Javascript, SQL

Technologies: SQLite, Google Cloud Platform - Google Cloud Run, Google Cloud Functions, Firebase, Docker, Git

- Designed, developed and deployed a music recommendation web application.
- Allows users to explore artists in the progressive rock scene by the "similarity" of their sound.

Education

BSc, Telecommunications and Computer Engineering, *ISCTE-IUL University of Lisbon*

- Honor roll student.
- Erasmus student at Universidad Carlos III de Madrid, Spain.

Interests

Languages

Python, Javascript, Scala, Java, Clojure, Golang, SQL

Programming paradigms and interests

Functional Programming, Functional Reactive Programming, Actor Model, RESTful Web API design, SOLID Design Principles and "Clean Code", Object Oriented Programming, Test-driven development.