Eduardo **Ribeiro**

Software Engineering student @ FEUP · Porto, Portugal

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Education

Faculty of Engineering of the University of Porto (FEUP) ⬀   *Sep 2017 - Present (Exp. Jul 2022)*

Integrated Masters (BSc + MSc) in Informatics and Computing Engineering   *Porto, Portugal*

- **Current cumulative GPA: 18.47 / 20**; finished the 4th year out of 5
- **Relevant coursework:** Systems Architecture, Distributed Systems, Web App Development, Algorithms & Data Structures, Artificial Intelligence
- Received a **Merit Scholarship** in the 2018/19 Academic Year, given to the best students in Portugal.
- Part of the **Informatics Engineering Student Branch** ⬀, where I organized and participated in several events and workshops.

Jobs & Experiences

Amazon Web Services ⬀   *Jun 2021 - Sep 2021*

Software Development Engineer Intern   *Berlin, Germany*

- Worked on performance improvements for the **Amazon Lookout for Metrics** ⬀ service.
- Decreased memory consumption of the training workflow by **~93%** and allowed a potential throughput increase from **50K time series to 1M time series**, by developing a pre-processing phase that converts datasets into a more efficient format.
- Performed extensive testing and performance benchmarking, in order to report execution times, memory consumption and CPU usage.

INESC TEC ⬀   *Feb 2020 - May 2021*

Research Assistant - "Big Data for Energy"   *Porto, Portugal*

- Developed a platform to foster energy analytics for R&D institutions, by automating energy and weather data collection and management.
- Automated energy data collection by making scripts that periodically fetch data from APIs of electricity data sources in Europe.
- Implemented missing values detection by developing a module that monitors DB with 130+ tables, each one with an average of 3 million rows.
- Allowed registered users to extract desired data by building an authentication layer and a REST API, and by helping create a user interface.
- Main technologies used: **Python, Django, Pandas, Apache Cassandra, RabbitMQ, Celery, Nginx, Vue.js, Docker, GitLab CI/CD.**

Faculty of Engineering of the University of Porto (FEUP) ⬀   *Feb 2021 - May 2021*

Teaching Assistant   *Porto, Portugal*

- Helped students in the **IART - Artificial Intelligence** subject with search and optimization algorithms, and Machine Learning exercises.

Critical Software ⬀   *Jul 2020*

Software Engineer Intern   *Coimbra, Portugal*

- Learned about the methodologies and tools used in critical projects, such as software for airplanes, trains and banks.
- Built a real time chat service using **Java** and **Kafka**, and an encryption/decryption system for smart meter data with **Java**, **SSL** and **XML**.

Projects

Labcentric - Monitoring and Management System for Laboratories ⬀   *Oct 2020 - Jun 2021*

Laravel (PHP), HTML/CSS/JS, PostgreSQL, Python, MQTT, Node.js, Raspberry Pi, Docker, Nginx, Heroku   *Team of 8 people*

- **Team leader** of a project developed for the *Dr. Ricardo Jorge National Health Institute* ⬀.
- Developed a web app for management of reagents, samples, procedures and executions, results, and other important data for the institute.
- Developed a system that monitors user actions during a lab procedure, by identifying QR Codes on reagents and recognizing voice commands.
- Allowed users to configure input/output devices that best suit their needs, by designing an extensible and scalable plugin-based architecture.

Intercompany Process Automator App ⬀   *Set 2020 - Dec 2020*

Javascript, React, Bulma (SCSS), Node, Docker, PostgreSQL, Primavera Jasmin API   *Team of 4 people*

- Promoted automation of purchase/sales processes between companies by developing a web application that integrates with the Primavera Jasmin API ⬀, that defines and handles all the transactions based on previously defined business processes.
- Offered overall view of transaction processes between companies by creating an interface that provides an overview of all related documents.

Distributed Backup Service for the Internet ⬀   *May 2020 - Jun 2020*

Java, Shell   *Team of 4 people*

- Developed a distributed P2P system with the purpose of backing up files divided in chunks in other peers.
- Protected the system against faults and raised its stability and scalability by implementing and using the Chord Protocol.
- Assured the privacy and integrity of the messages, and increased system security by implementing secure communication channels with JSSE.
- Achieved high degrees of concurrency and parallelism by using thread pools and non-blocking I/O.

Skills

Technical	**Git, Java, Python, Django, Javascript, C/C++, HTML/CSS/PHP, Laravel, Node.js, SQL, REST API, OOP** - Proficient
	Docker, React, Go, CI/CD, Agile/Scrum, Unix/Linux - Medium Understanding
	NoSQL, AWS - Prior Experience
Languages	**Portuguese** (Native), **English** (Full Professional Proficiency), **Spanish** (Limited Working Proficiency)