Eduardo **Ribeiro**

Software Engineering student @ FEUP · Porto, Portugal

(+351) 969533104 | eribeiro306@gmail.com | eduardocribeiro.com | EduRibeiro00 | eduardocribeiro

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.** Currently on my 5th 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.
- Currently studying abroad for one semester, through the ERASMUS program, at **Aalto University**, in **Espoo, Finland.**

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***

- 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.

Artwork Recognition using Bag of Words and CNNs

May 2021 - Jun 2021

Python, Jupyter Notebook, Keras, SKLearn, Matplotlib, Seaborn — ***Team of 4 people***

- Developed a system that can perform classification of images, applied in this case to the artwork collection dataset provided by the *Metropolitan Museum of Art in New York*.
- Implemented several methods and techniques to solve the problem, like using a Bag of Words descriptor + classifier, and using Convolutional Neural Networks, and evaluated the performance of each method using relevant metrics.

Covid Forecast Tool

May 2020 - Jun 2020

Python, Jupyter Notebook, SKLearn, Pandas, Numpy, Matplotlib, Seaborn, Kaggle datasets — ***Team of 3 people***

- Created a tool that predicted Covid-19 cases and deaths for various countries/regions, with ~90% accuracy, by training several regression models using Covid-19 data from a Kaggle dataset that contained the confirmed, death, and recovered cases for each day.
- Compared several Machine Learning algorithms, such as Neural Networks, Support Vector Machines, K-Nearest Neighbours and Random Forest.

Skills

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