# Curriculum Vitae

#### Biodata



### Ricardo Jorge de Araújo Ferreira Informatics and computing engineer (M.Sc.) Electrical and computer Science engineer (M. Sc.)

January 19, 1985

Av. Dr. Pedro Mendes 154 4580 - 297 Paredes Paredes, Portugal ✓ ricarraf@gmail.com✓ /ricardojaferreira✓ /RicardoAraujoFerreira

 $\square$  +351 91 615 15 65

# **Summary**

I started my career as an electrical engineer, specializing in automation and power control systems. However, I soon discovered my passion for software development. I began creating small programs to streamline my daily tasks, including web and local applications for data analysis, file manipulation, database integration, and more.

With a foundation in computer science, I transitioned into software development roles within various companies. To deepen my understanding of software development, teams, and products, I pursued a master's degree in informatics and computing engineering.

Throughout my career, I have gained experience with a diverse range of technologies and stacks. Notably, I contributed to building a custom order processing system in Java at Jumia ("The African Amazon"), worked at Paddy Power, Betfair, and Fanduel on a high-volume betting platform using Java and Scala, incorporating technologies like Docker, Kafka, Akka, Cassandra, MySQL, AWS, Ansible, among others. I fully embraced the DevOps culture within software development, a practice I continue to uphold and share with colleagues.

More recently, I have been involved in an Al-based company, developing an innovative document processing software in Python using the Django framework. Beginning as an individual contributor focused on integrating ML models and processing training data, I moved to an engineering management role. Currently, I lead a team of six developers and two QA engineers while still engaging in programming tasks when possible.

Additionally, I oversee the support on-call program within the company, constantly expanding my knowledge in areas like data analysis and optimization. This continuous learning process shapes my role as a manager and technologist in a dynamic and evolving industry.

## Work Experience

#### Engineering Manager

Hyperscience, Ltd

Jun 2023 - Present New York, USA (Remote)

- Hands-on leader of a team with 6 developers and 2 QA engineers;
- Leading an agile team responsible for integrating new ML models and training data management tools;
- Discoveries and leveraging technical requirements for new features;
- Responsible for the management and implementation of the oncall engineering support team;

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## Software Engineer

Hyperscience, Ltd

Aug 2021 - Jun 2023

New York, USA (Remote)

- Designing abstractions, APIs and tools to connect with Machine Learning modules;
- Development of the intelligent document processing (IDP) tool, written in Python;
- Making discoveries and leveraging technical requirements for new features;
- Development and management of automation tests and integration pipelines;

#### Backend Developer

Dec 2019 - Aug 2021

Blip - Paddy Power Betfair & FanDuel - Flutter entertainment Plc

Porto, Portugal

- Write well-designed, testable and efficient code in JAVA and Scala;
- Deploy and maintain applications in continuous integration platform;
- Execute full software development life cycle in a microservices architecture that processes 135M transactions every 24h;
- Design and develop technical solutions or processes aligning requirements with stakeholders;

# Web Engineer - Fullstack Developer

Feb 2018 - Dec 2019

Jumia - Porto Tech Center

Porto, Portugal

- Development of software solutions using JAVA frameworks, Spring and Play;
- Database managament and design, (Postgres and Mysql);
- Technical Specification and development of business requirements and improvements;
- Development of solutions with a strong concern about clean code and architecture;
- Working in an environment with the DevOps culture;

#### Fullstack Developer

May 2014 - Feb 2018

Gravity Demand, Lda (E-Commerce)

Penafiel, Portugal

- Development and integration of software solutions, client/sever programming (JAVA, PHP, Javascript, SQL, CSS, HTML5);
- Integration with external services (REST and other API's);
- Technical specification, design and architecture;

- Management and coordination between work teams (Marketing, Design, Sales, Development).

#### R&D Engineer

Jan. 2012 - May. 2014

INESC, Institute for Systems and Computer Engineering

Porto, Portugal

- Research, testing and development of power converters for electric vehicles and power grids;
- Design of analog and digital feedback control systems (Software and hardware);
- Validate emerging concepts in Smart-Grids and Renewable Energy systems by developing electronic prototypes;
- Development of software for validating concepts and make complex computations (C++ and JAVA).

## Control and Automation Engineer, Junior manager

Aug. 2008 - Jan. 2012

Maia, Portugal

Efacec, Sistemas de Engenharia, SA

- Development of control and automation architectures for the Portuguese electric power system (Distribution and Transport Substations - 15kW to 400kW);
- Commissioning and development of factory and site acceptance tests for electric power systems;
- Management and configuration of large IP based Networks and information systems based on UNIX platforms;
- Management of engineering projects (Planning Schedules and coordinate activities).

FEUP Project

FEUP, Porto

Undergraduate Teaching Assistant

Sept. 2007 - Jan. 2008

- Teach how to organize and develop an engineering project.
- Led weekly course seminars.

#### **Education**

# MsC in Informatics and computation engineering

2020

Faculdade de Engenharia da Universidade do Porto

Porto, Portugal

- Principal Subjects:
  - \* Languages and Web Technologies; Computation Theory; Algorithms; Discreet Mathematics, Oriented Programming Languages, Operating Systems, Databases, Software Engineering, Formal tests in software, Software architectures, Data analysis, Machine Learning
- Thesis: Recovery of software architectures using code repositories. (Classified with 17 out of 20)

## MsC in Electrical and computers engineering

2008

Faculdade de Engenharia da Universidade do Porto

Porto, Portugal

- Major: Automation and control systems
- **Specialization**: Power and industrial electronics and instrumentation
- Thesis: Solar car. (Classified with 17 out of 20)

## Languages

(Scale: 1 - Basic, 5 - Very Good)

Portuguese 5 (Mother Tongue)
Italian 5 (My Father is Italian)

**English** 4 (I work in a company where english is the main language.)

Spanish 3

## # Skills

- Programming and Markup Languages
  - Expert: JAVA, Scala, Python, CSS, HTML5, JSON, SQL, JavaScript, C/C++, LATEX
  - Intermediate: Bash, PHP, XML
- Frameworks
  - Expert: Spring, Django
  - Intermediate: Play, Laravel, Zend, ReactJs
- Test and Debug
  - Junit, Jest, PHPunit, Xdebug, Cucumber, Gherkin
- Tools and Software
  - Expert: UNIX Shell, Docker, Akka, Apache Storm, Apache Cassandra, Prometheus, Grafana, MySQL/MariaDb, PostgreSQL, Apache 2, Magento, GIT, Jenkins
  - Intermediate: Couchbase, RabbitMQ, Nginx, Hazelcast, Memcached, Redis
- Operating Systems
  - Mac OS, Linux
- Social
  - People person, enjoys being challenged, hardworking, leadership, entrepreneurial, organized.