

Curriculum Vitae

Biodata



Ricardo Jorge de Araújo Ferreira

Electrical and Computer Science Engineer (M.Sc.)

Student of Master in Informatics and Computing Engineering

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January 19, 1985

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Summary

I started my career as an electrical engineer, working with automation and power control systems. But, soon I realized that software was my passion. I started to develop some tiny programs to help with my everyday tasks, applications running on the web and locally, that perform data analysis, file creation and manipulation, integration with databases and others. And some applications just to learn and have fun. I've started to pursue more software-oriented opportunities. When a new opportunity arose at the Institute for Systems and Computer Science of Porto to integrate the renewable energies team I took it. At this job, as a researcher in the field of power converters for electric vehicles and intelligent power grids, I had the opportunity to develop algorithms and convert them to software, written in C/C++. This was a great opportunity to increase my technical and planning skills. I had also the opportunity to write scientific papers and present them at international conferences. Being an R&D engineer was a great opportunity to go out of my comfort zone and to test new and challenging areas.

Although, low-level control software was not my goal, and so I've looked for opportunities to learn more about algorithms, software architecture, software testing, web development, data analysis and software management. I have enrolled on the **Master degree in informatics and computing engineering**, at the University of Porto, a 5-year programme that helped me to consolidate what I had learned during my professional experience and taught me fundamental concepts of software engineering.

Since then, I have been working as a software engineer in agile environments and had the chance to help develop diverse platforms, with different programming languages like PHP, Java, Scala, C++, Python, Javascript/Typescript, and Ruby, among others and tools and frameworks like Spring, Django, React, AKKA, Kafka, MySql, Postgres, Apache Cassandra, Apache Storm, Hazelcast, Cucumber and others.

I am currently working as a backend engineer (also doing some frontend tasks) in a machine learning company based in the USA, that develops intelligent document processing (IDP) technologies.

Work Experience

- **Backend Developer** **Aug 2021 - Present**
New York, USA (Remote)
Hyperscience, Ltd
 - 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**
Porto, Portugal
Blip - Paddy Power Betfair & FanDuel - Flutter entertainment Plc
 - 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**
Porto, Portugal
Jumia - Porto Tech Center
 - Development of software solutions using JAVA frameworks, Spring and Play;
 - Database management 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**
Penafiel, Portugal
Gravity Demand, Lda (E-Commerce)
 - 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**
Porto, Portugal
INESC, Institute for Systems and Computer Engineering
 - 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**
Efacec, Sistemas de Engenharia, SA Maia, Portugal
 - 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; Discrete 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, 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.

Ricardo Louço de Araújo Ferreira