Marco Francisco da Silva Pereira Amador

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Summary

I am an experienced software engineer, enthusiast of open-source and the DevOps culture and practices. I have been building complex, large-scale and distributed systems, working with functional and reactive programming, Microservices, Big Data, Infrastructure as Code and Cloud-Native technologies. I have interest in Data Science and Machine Learning.   *"Give me Docker and Kubernetes and I'll scale the world" MArchimedes*

Experience

Senior Software Engineer @Meltwater, Gothenburg, Sweden   Since Jan 2018

Architecture and development of distributed and resilient Search and Analytics solutions in Meltwater's Information Retrieval team on top of a petabyte scale Elasticsearch cluster with 99.99% uptime service level, 150ms median response time and 700+ elasticsearch nodes.

Contribution to Search, Storage, Alerting and Content Export projects and created functional and reactive Document Service and *Fast Lane* Storage Service. Worked on data intensive projects like the ingestion of the whole Twitter, Instagram and Reddit firehoses. Contributed to Shardonnay, a shard placement optimizer using linear programming to minimize the variance in workload and disk usage over elasticsearch nodes and to Search Router, a Machine Learning project to predict elasticsearch queries resource consumption and to load balance them across different priority zones. Active member of Meltwater's API Guild and participation on several international conferences.   Java, Kotlin, Spring, RxJava, WebFlux, Python, Elasticsearch, Cassandra, Kong, Terraform, Mesos/Marathon, AWS

Senior Software Engineer, CTO & Managing Partner @Maisis, Digitalwind & Bikeemotion, Portugal   Jan 2015 - Dec 2017

Architecture and development of backend and kiosk software for Bikeemotion (bikeemotion.com), a distributed, microservice-based and high-resilient vehicle-sharing IT solution for a real-time fleet tracking and management, sold exclusively worldwide by Bewegen (bewegen.com). Collaboration on the creation and maintenance of the infrastructure as code.   Java, OSGi, Storm, ActiveMQ, Elasticsearch, Cassandra, C#, Docker, Kubernates, GCloud

Technical lead, architecture, development and infrastructure in Sharki (sharki.pltrackers.com), a distributed, scalable and highly-available real-time tracking and performance monitoring solution for training, competition and security of water sports events.   Java, Scala, Storm, ActiveMQ, Cassandra, Hazelcast, Docker, Kubernetes, GCloud

Technical and scientific research of organizational processes and information models, analysis and specification of technical requirements, architecture design and contribution in the development of the project SOCIAL - Cooperation for Integrated Assisted Living (kentratech.eu/social). Java, Spring Boot, JPA, Postgres, MongoDB, Docker

Contribution to the development of the project SmartBikeemotion, an intelligent rebalancing system for vehicle sharing solutions, based on Ant Colony Optimization algorithm.   Java, Akka, PostgreSQL, Docker, Kubernetes, GCloud

Participation in the project DA.RE from the Erasmus+ programme promoted by the European Commission, which aims to identify and design training programs dedicated to the future of big data professionals.

Technical lead and supervision of Maisis and Digitalwind development teams.

Technical reviewing of Learning iOS 8 Game Development book, Packt Publishing. iOS, Swift, SpriteKit, SceneKit, Metal

Senior Software Engineer, CTO & Managing Partner @ Maisis, Portugal   Jul 2007 - Jan 2015

Collaboration in the architecture and development of OObian, an enterprise search and semantic ontological suite built with JEE technologies, and on its subproject, JOObian, a job recommendation system with automatic match of worldwide opportunities with the user technical skills. Java, JPA, Lucene, JAX-RS, OWL, Protégé, PostgreSQL, JBoss

Project management, architecture and development of Bolsa de Tecnologia e Negócios (bolsatecnologia.pt), an online database of partnering opportunities at national and international levels, ranging from R&D projects partner search, innovative products and services to technology transfer. Java, JSP, Stripes, JPA, JAX-WS, SqlServer, Lucene

Development and maintenance of Search Framework, a flexible reporting and search engine framework to integrate on Java projects through simple XML descriptor files. Member of PT Inovação NOSSIS Framework Committee as Search Framework product owner. Java, JSP, Velocity, XML, JPA, JFreereports

Project management of Tracy and Lopes, R&D projects for indoor and outdoor location. Java, JSP, JPA, JEE

Development of IBeacon iOS and Android mobile applications. Objective-C, Swift, Java, iBeacon

Senior Software Engineer @ PT Inovação (outsourced by Maisis, Lda.), Portugal   Jan 1995 - Jun 2007

Architecture and development of software in GEREX and LONGA, OSS solutions from Portugal Telecom. Data warehouse modeling, ETL, OLAP and navigation systems. Java, JSP, Pentaho, Mondrian, JPivot, C++, Motif/X11

Software Developer @ PT Inovação (Portugal Telecom Group), Portugal   Jan 1991 - Dec 1994

Software development in DOURO, OSCAR, LONGA and GEREX projects. C/C++, Motif/X11, OpenView, ProC, PL/SQL, Oracle

Technical skills

★★★★★ Java, Kotlin, RxJava, WebFlux	★★★★☆ C#, C/C++, .NET	★★★★☆ Cassandra, DynamoDB
★★★★★ Spring, Struts, Stripes	★★★★★ PostgreSQL, MySQL	★★★☆☆ Go, Python, Elixir
★★★★★ Hibernate, Ibatis	★★★★☆ Grafana, Datadog	★★★★★ Kong, Nginx, HAProxy
★★★★★ Web services (REST/ SOAP)	★★★★☆ Junit 5, Spock	★★★★☆ Memcached, Redis, Hazelcast
★★★★☆ Apache Storm, Spark	★★★★☆ Jenkins, Drone, Travis	★★★★★ Kubernetes, Mesos/Marathon, Docker
★★★☆☆ TensorFlow, Keras	★★★★★ Terraform, Puppet	★★★★★ Amazon Web Services (AWS)
★★★★☆ ActiveMQ, RabbitMQ, Kafka	★★★★★ Elasticsearch, MongoDB	★★★★★ Google Cloud Platform

Education

25.01.2005   Licentiate degree (5 years degree) in Computer Science Engineering

ISEP - Instituto Superior de Engenharia do Porto, Portugal

29.06.2001   Bachelor's degree (3 years degree) in Computer Science

ISTEC – Instituto Superior de Tecnologias Avançadas do Porto, Portugal

Other training

J2EE Technologies, Java, Advanced C++ Programming, C++ Oriented Design and Programming, Intro to Python for Data Science, Introduction to R, Deep Learning, Machine Learning.

Languages

Portuguese native   English fluent   Spanish intermediate   French intermediate

Other interests

Sprint kayak, badminton, table tennis and classic motorcycles.