Pedro Melgueira

Software Engineer & IT Consultant

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EXPERIENCE

Freelance Software Engineer, Rhein-Main, Germany

April 2019 - PRESENT

Freelance Software Engineer and IT Consultant in the Rhein-Main area. I've mainly developed Python and Go projects with strong emphasis on data engineering.

Technologies: Go, Python, C, C++, ZeroMQ, PostgreSQL, Influxdb, Elasticsearch, Redis, Neo4j, SQLite, Docker, Linux, Visual Studio, Vue

Deutsche Bank, Eschborn, Germany — *Software Engineer*

May 2017 - PRESENT

Development of Malware Response platform. The system is developed in Python and Django and uses PostgreSQL, Elasticsearch, and Neo4j for data storage. Third party tools such as FireEye, LastLine, and VirusTotal, are used as backends for malware analysis. Some of the biggest features I've implemented were the search engine which uses a custom query language.

Technologies: Python, Django, Celery, RabbitMQ, PostgreSQL, Elasticsearch, Kibana, Redis, Neo4j, Docker, Linux

Penguin Formula, Lisbon, Portugal — *IT Consultant*

April 2017 - March 2019

IT Consultant, worked on internal projects and performed technical interviews. Worked with Python.

Technologies: Python, ZeroMQ, PostgreSQL, Docker, Linux

Pknoa, Lisbon, Portugal — *Software Engineer*

January 2016 - December 2016

Worked on low level implementation of NoSQL database with novel data model. worked on definition and implementation of querying language for this database. Developed testing tools. Worked with Python, C and C++.

Technologies: C, C++, Python, CMake, PostgreSQL, MySQL, Docker, Linux, Visual Studio

EXPERTISE

Agile, Backend Development, Databases, Data Mining, Machine Learning

PROGRAMMING

Go, **Python**, C, C++, Javascript, Erlang, Prolog

DATABASES

PostgreSQL, **InfluxDB**, **Elasticsearch**, Neo4j, MySQL/MariaDB, SQLite, MongoDB, Redis

FRAMEWORKS

Django, Django Rest Framework, ELK Stack, Flask, NodeJS Express, Qt, Vue

TOOLS

Linux, **Docker**, Vim, Git, Scikit-Learn, Numpy, Matplotlib, Pandas, CMake, Celery, Jenkins, Jira, Sphinx, RabbitMQ, ZeroMQ, MessagePack, Digital Ocean, AWS

University of Évora / Viatecla, Évora, Portugal — *Researcher*

July 2015 - October 2015

Research and development of data mining solutions for Viatecla's internal content manager. The objective was to find specific distributions of mostly nominal data and present them to a user.

Technologies: Python, Numpy, SK-Learn, Pandas, Linux

University of Évora / Embraer, Évora, Portugal — *Freelancer*

April 2015 - July 2015

Implementation of an ubiquitous system for management of tools in an assembly line. Two applications were developed, both using CEF+HTML5. A backend was developed using Python and RabbitMQ. PostgreSQL was used for data storage.

Technologies: Python, PostgreSQL, MongoDB, Docker, Linux

University of Évora / Portugal Telecom (PT), Évora, Portugal — *Freelancer*

December 2014 - April 2015

Worked on the implementation of a RabbitMQ library and a MessagePack library for YAP Prolog. Implementation was made using Prolog and C.

Technologies: Prolog, C, RabbitMQ, Linux

Viatecla, Évora, Portugal — *Software Developer*

Juy 2012 - January 2013

Frontend developer for an e-learning video platform. The project was developed using Javascript and JQuery. It made extensive use of HTML5 drawing libraries such as Raphael.

Technologies: HTML5, JavaScript

University of Évora - CITI, Évora, Portugal — *Internship*

April 2010 - July 2010

Developed an online service for document creation. The user would insert some information in a form and the service would create a set of PDF files with that information written. The frontend of the service was a simple HTML+CSS website. The backend implementation was PHP. PDFs were generated from LATEX and SVG templates.

Technologies: PHP, HTML, Javascript, MySQL, Linux

VG Software, Vendas Novas, Portugal — *Internship*

June 2009 - July 2009

Fullstack web development using Javascript, PHP, and MySQL. Development in C++ using the Qt framework.

Technologies: PHP, HTML, Javascript, Cpp, QT, MySQL, Linux

MARKUP

HTML, CSS, reStructuredText, Markdown, Json, XML, Yaml, Latex

LANGUAGES

Portuguese - Native

English - Fluent

German - B1

Masters Degree in Computer Engineering, University of Évora

2013 - 2017

Final Average 17/20 – Thesis 20/20

Degree in Computer Engineering, University of Évora

2010 - 2013

Final Average 15/20

Computer Technician for Management, School of Montemor-o-Novo

2007 - 2010

Final Average 16/20 – Final Project 20/20