

Alexandre Pinto

Software/Machine Learning Engineer
Coimbra, Portugal

✉ | alexandpinto@gmail.com
🌐 | alexpnt.github.io
🐙 | [alexpnt](https://github.com/alexpnt)
in | [alexandre-pinto](https://www.linkedin.com/in/alexandre-pinto)

Summary

Software engineer competent in implementing backend systems. Generalist who is not bound to any specific language. Proficient in Python. Familiar with Java and C. Experienced in building distributed systems and comfortable working with Linux or other Unix systems. Enjoy tackling engineering problems with good system design choices, clarity, scalability and performance.

Work Experience

Jan 2022 - Present

Senior Backend Engineer - [TestGorilla](#)

At TestGorilla I am responsible for developing and expanding the core product features of the TestGorilla platform. This entails designing and writing efficient code that follows the best industry practices regarding performance, scalability and testing (app.testgorilla.com).

Technologies: Python 3.x, Django, Django Rest Framework, Celery, Redis, Docker, Git.

Nov 2017 - Nov 2021

Senior Backend / Machine Learning Engineer - [WIT software](#)

At WIT, I was responsible for turning machine learning experiments and proof-of-concept prototypes into production-ready solutions, always having performance and scalability in mind. I worked mostly in the Natural Language Processing (NLP) sub-field of Artificial Intelligence, using state-of-the-art methods. My daily work encompassed all stages of research, design, implementation and testing of machine learning services (www.wcp.ai).

Besides research and prototyping, I was also responsible for the system architecture and the development of distributed, highly-concurrent prediction microservices.

Technologies: Python 3.x, NumPy, Pandas, Scikit-learn, XGBoost, Keras/Tensorflow, gRPC, FastAPI, Docker, Ansible, Git.

Nov 2016 - Oct 2017

Backend Developer - [Ubiwhere](#)

At Ubiwhere, I was part of the core team responsible for developing a smart water consumption platform for the city of Porto, Portugal. This meant building a system with high-availability, multi-tenancy and concurrency support. My job consisted in implementing REST APIs and developing the core of the backend web services. Furthermore, I was also involved in the development of the frontend mobile app, used by hundreds of users and available in multiple mobile operating systems such as Android and iOS ([app-aguas-do-porto](#)).

Technologies: Django/Python, Django REST Framework, Ionic, Docker, Git.

Oct 2015 - Jul 2016

Machine Learning Research Intern - [INESCTEC](#) / [CISUC](#)

At INESC TEC/CISUC, I was involved in a research team that developed a filter system ([REMINDS](#)) that classifies public social data according to their potential relevance to a general audience, filtering out irrelevant information and relying primarily on linguistic and journalistic features.

Technologies: Python, NumPy, Pandas, Scikit-learn, Matplotlib, Seaborn, PyQt5.

Oct 2013 - Mar 2014

Software Developer - [Pedro Nunes Institute \(IPN\)](#)

At IPN (Laboratory for Informatics and Systems), I maintained and developed new features for the information systems.

Technologies: Apache Struts/Java, Ruby on Rails/Ruby, Git.

Relevant Technical Skills

- ✧ **Programming Languages:** Proficient in Python. Familiar with Java and C. Able to quickly learn a new language. Very focused on fundamentals that are transferable across different languages.
- ✧ **Programming Paradigms:** Object Oriented, Procedural, Distributed/Concurrent programming.
- ✧ **Web Frameworks:** FastAPI, Falcon, Flask, Django, Django Rest Framework.
- ✧ **Web Protocols:** REST/RPC, gRPC with protocol buffers. JSON.
- ✧ **Machine Learning Tools:** scikit-learn, XGBoost, SciPy stack (NumPy, Matplotlib, pandas), seaborn. Familiar with Keras/Tensorflow.
- ✧ **Artificial Intelligence Theory:** Supervised/Unsupervised Learning Algorithms, Natural Language Processing, Evolutionary Computation.
- ✧ **Data Structures and Algorithms:** Knowledge of different data structures and optimization algorithms.
- ✧ **Control Version Systems:** Git.
- ✧ **Relational Databases:** PostgreSQL, MySQL.
- ✧ **NoSQL Databases:** MongoDB.
- ✧ **Messaging Systems:** Celery with RabbitMQ.
- ✧ **Testing:** Knowledge in developing unit, integration and end-to-end tests.
- ✧ **CI/CD Systems:** Jenkins.
- ✧ **Deployment Tools:** Ansible, Docker.
- ✧ **Development Tools:** JetBrains Suite (PyCharm, IntelliJ, Datagrip, WebStorm), Sublime Text Editor, Unix shells.

- Υ **Web Frontends:** Familiar with HTML and CSS.
- Υ **Operating Systems:** Competent in GNU/Linux. Familiar with Windows.
- Υ **Productivity/Project Management Tools:** Trello, Redmine, Slack.
- Υ **Languages:** Portuguese (fluent, native), English (very good).
- Υ **Professional Soft Skills:** Self-motivated, Self-learner, Team Player, Planning and Organizational Skills.
- Υ **Professional Ethics:** Follower of industry best practices and strong advocate of rational decisions that minimize long-term negative effects in software development.

Education and training

➤ **University of Coimbra**

Master Degree in Informatics Engineering - Intelligent Systems

2013 – 2016

- Graduated with 15/20 average
- Dissertation titled “Classification of Social Media Posts according to their Relevance”

➤ **University of Coimbra**

Bachelor Degree in Informatics Engineering

2010 – 2013

- Admission Grade: 17.55/20
- Graduated with 16/20 average

➤ **High School - Quinta das Flores**

Science and Technology Course

2007 – 2010

- Graduated with 16/20 average

Publications

➤ **Predicting the Relevance of Social Media Posts Based on Linguistic Features**

Alexandre Pinto and Gonçalo Oliveira, H, and Alves, A., New Generation Computing, 2017

➤ **Comparing the Performance of Different NLP Toolkits in Formal and Social Media Text**

Alexandre Pinto and Gonçalo Oliveira, H, and Alves, A., pp 1–16, vol 51, SLATE, 2016

Awards, Grants & Honours

Award to the 3% Best Students 2010 – 2011
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