JOÃO MOTA

MACHINE LEARNING ENGINEER

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PROFILE

I'm a Machine Learning Research Engineer at Bosch, contributing to the THEIA project's AI perception solutions. Motivated to learn new things while continuing to explore the AI world and solving interesting engineering problems.

EDUCATION

University of Porto - FEUP

- Integrated Master's in Electrical and Computer Engineering 2017 - 2018
- Integrated Master's in Informatics and Computation Engineering 2018 - 2021
- Master's Degree in Informatics and Computer Engineering 2021 - 2022

EXPERIENCE

Bosch - Machine Learning Research Engineer & MLOps August 2022 - Present

- After my internship, in August of the same year, I re-joined the team to take on a new challenge as a full-time ML Research Engineer working on a publicly funded research project named THEIA that aims to improve LiDAR perception for AD cars. Months later I was also trusted with MLOps duties for the team.
- Some of the tools used: Python, PyTorch, Numpy, IBM LSF, GPU Cluster, Linux, Jenkins, Docker, LiDAR, Git, Agile

Bosch - Academic Internship in Deep Implicit Representations for Autonomous Driving March 2022 - July 2022

- My journey at Bosch started in March of 2022 as part of my master's thesis, with an academic internship in implicit representation for autonomous driving. In August of the same year, Here I tried to improve the SOTA in regard to implicit representations for AD via LiDAR + RGB fusion. See here for a similar project.
- Some of the tools used: Python, PyTorch, Numpy, IBM LSF, GPU Cluster, Linux, Docker, Git

INESCTEC - Graduate Research Assistant October 2021 - February 2022

- During the first semester of my senior year, I collaborated with INESCTEC on a machine learning project by creating an API that allowed accessing a given model's predictions regarding student success for the University of Porto.
- Some of the tools used: R, Plumber

PROJECTS

My first game: Falling Colors: Catch Them! https://apps.apple.com/us/app/falling-colors-catch-them/id1561799594

- For my first solo project, I had to teach myself C# and tried to create an entertaining hyper-casual game that is available on both the App Store and Play Store!
- Some of the technologies used: Unity, C#

Predicting the odds for football matches https://github.com/jppm99/IART/blob/master/T2/src/notebook.ipynb

- This project aims to predict the betting odds of football matches using historical data and information about the teams and their players. We used multiple supervised learning algorithms to get the best results, such as decision trees, neural networks, k-nearest neighbors, and support vector machines.
- Some of the technologies used: Python, Jupyter notebook, Scikit learn

A platform for aeronautical medicine (private repository)

- As my first real-world project, its goal is to provide European aeronautical doctors a way to share and store information about their patients, allowing for easier fraud prevention.
- Some of the technologies used: ReactJS, MongoDB, NodeJS, Google Cloud Platform

SKILLS

Engineering Python, PyTorch, Machine Learning, C++, C, Java, AI, TypeScript, MongoDB, JavaScript, SQL, ReactJS, NodeJS, PHP, C#, ...

Languages Portuguese (native), English (fluent)