João Rocha

AI Enginner

Personal Info

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Education

- **Bachelor of Mathematics (4.0)**
  University of Porto
  Sep 2014 - Jul 2017
- **Masters in Mathematics (3.9)**
  University of Bonn
  Oct 2018 - Aug 2020

Skills

- Python
- Django
- RESTful APIs
- AWS Services (EC2, ECR, EKS)
- MLOps
- Kubernetes
- TensorFlow
- LangChain
- GPT-4
- PostgreSQL
- Ray Cluster
- Snowflake
- Vue.js
- LLMOps

Languages

Summary

Skilled and technically sophisticated professional with substantial expertise in designing, developing, and deploying ML models and pipelines. Expert in utilising advanced technologies and tools such as PyTorch, Django, AWS, and Kubernetes with keen focus on enhancing operational efficiency and user experience. Proficient in handling large datasets and complex algorithms, demonstrated by a track record of increasing user satisfaction and engagement metrics significantly. Innovative in developing solutions, particularly in the field of recommendation systems and predictive modelling, which have led to substantial improvements in data processing capabilities and model accuracy. Multilingual, fluent in English and Portuguese with basic proficiency in Spanish, enhancing communication in diverse team settings and international projects.

Work Experience

Machine Learning Engineer , Jungle AI, Lisbon

July 2021 - Present

Develop and maintain web applications, ML pipelines, and MLOps through different tools such as Django, Vue.js, Kubernetes and AWS (EKS, ECR, EC2) to enhance operational efficiency. Excel in collaborative problem-solving and project management, contributing significantly to the company's competitive edge and enhanced customer experience.

- Achieved a 20% increase in customer satisfaction scores and retention rates by 25%,, by employing a GPT-4 based assistant.
- Maximised efficiency of metadata storing and processing pipelines, by spearheading project's data architecture using PostgreSQL to handle over 1TB of internal and customers metadata.
- Improved machine learning workflows through implementing a custom-made DAG pipelines Python package, resulting in enhanced efficiency and data processing capabilities.
- Co-developed an Django and Vue.js based internal-use application to streamline customer onboarding, reducing the timeframe from days to hours, thereby boosting operational efficiency and customer satisfaction.

Data Scientist, INEGI, Porto

August 2019 - May 2021

English

Portuguese

Spanish

Links

LinkedIn

Github

Personal Website

Designed and deployed Machine Learning models for predicting electricity generation in wind and solar farms, whilst utilising ARIMA regression, h2o in R, TensorFlow, and Prophet. Focused on data exploration and cleaning using Python and Amazon EC2, alongside feature engineering, to enhance Machine Learning model performance. Collaborated with engineering teams and business stakeholders to implement scalable solutions, advancing predictive model capabilities and maintaining high data integrity standards.

- Augmented operational efficiency by building and maintaining real-time prediction pipelines for renewable energy resources.
- Developed Machine Learning solutions in renewable energy sector to improve data processing and model accuracy.
- Achieved 40% reduction in deployment times and a 30% increase in system reliability by leading backend infrastructure setup using Amazon EC2.
- Gained 50% boost in data throughput and a 20% decrease in operational costs, contributing to a 15% increase in overall company productivity by implementing efficient data processing strategies with Ray Cluster.

Hobbies

Enjoys following AD Valongo hockey and football matches, exploring culinary arts, and engaging in occasional weekend escapes.

References

References available upon request

Courses

AWS Certified Machine Learning Specialty, MLS-C01