# Vasco Rodrigues

Al Researcher · Data Scientist · Machine Learning Engineer

Porto, Portugal

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## Summary\_

Ambitious AI Researcher with over 2 years of experience in applying AI in solving business problems through analysis, planning and experimentation. Recognized for academic excellence, I hold a Merit Award and was ranked 2nd overall in my MSc in Computer Software Engineering: Information and Knowledge Systems from ISEP. Currently looking to make the jump to a Data Science or Machine Learning Engineer position where i can continue honing my current skills and learn new ones to help drive business success.

# Professional Experience \_\_\_\_\_

#### **GECAD - AI Department**

Porto, Portugal

Al Researcher

December 2022-nowadays

- Integrated an international project with multiple interdisciplinary teams. The Portuguese consortium worked on an e-commerce use case for a footwear company.
- Revamped and enhanced an user-centric chatbot that accurately identified user's intentions, extracted business domain entities and offer customized product recommendations based on user preferences and gathered information.
- Conducted a thorough examination of the chatbot models and detected instances of over-fitting. Subsequently, implemented a successful restructuring to remove the over-fitting and optimize the performance of the models, resulting in F1-scores of 0.90 and 0.88, in Intent Classification and Named-Entity Recognition tasks.
- Implemented containerization and deployment of the chatbot application using Docker and Kubernetes, resulting in increased user retention and satisfaction by reducing search time by 30% and ensuring seamless user experience.

#### **GECAD - AI Department**

Porto, Portugal

Al Researcher

April 2021-November 2022

- Collaborated with a three-person team in an Argument Mining Doctorate project which lead to the application of Artificial Intelligence to the Group Decision Making context.
- Applied Named-Entity Recognition pre-trained models for Alternative Detection as a baseline results for the model we developed
  for the project, achieving an accuracy of 75-80% on the existing dataset.
- Experimented with multiple Clustering techniques in addition to Dimensionality Reduction techniques and proper Data Treatment and Preprocessing to dynamically organize conversations. The experimentation methodology and its' results were published in MDPI, in the Applied Sciences journal.

## **GECAD - Energy Department**

Porto, Portugal

Full Stack Developer

February 2020-August 2020

- Development of an Energy Management Web Platform for Buildings which integrated some Artificial Intelligence models like consumption optimization and prediction developed previously.
- Conducted some A/B Testing to the deployed consumption prediction model.
- Technical Skills: MERN Stack, Python, R, Docker, Scrum, Git

#### **Education**

### Polytechnic of Porto - School of Engineering (ISEP)

Porto, Portugal

MSc in Computer Software Engineering: Information and Knowledge Systems & BSc in Computer Software Engineering

September 2017 – October 2022

- Distinguished with Merit Award and 2nd best overall in my MSc
- **Fields Explored:** Data Science, Knowledge Representation and Reasoning, Statistical Theory and Methods, Learning Skills through Case Studies, Artificial Intelligence, Machine Learning, Deep Learning, Data Engineering, Simulation, DevOPS.

## Skills.

**Programming** Python (Pandas, NumPy, Scikit-learn, PyTorch, Tensorflow, etc.), R, SQL.

**Miscellaneous** Git, Docker, Kubernetes, SCRUM

**Soft Skills** Time Management, Teamwork, Problem-solving, Quick-learner, Critical Thinking, Organization, Communication.

# **Languages**

Portuguese Native Proficiency
English Professional Proficiency
Spanish Elementary Proficiency