



António Capela

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Links

GitHub **antcap96**
LinkedIn **appcapela**

Coursework

GRADUATE
Advanced Algorithms
Computability and Complexity
Artificial Intelligence
Machine Learning
Reinforcement Learning
Time Series Analysis
Probability Theory
Statistical Learning

Dissertation: An Adaptive and Transferable Dialog Management System for Social Aware Task Execution [1]

Skills

PROGRAMMING

Python • Julia • SQL • Rust • C • C++ • Scala

MISCELLANEOUS

Shell • LaTeX • Git • Microsoft Office • Confluence

Languages

ENGLISH

C1
Certificate obtained by achieving grade A on the FCE exam in 2013.

PORTUGUESE

MOTHER TONGUE

Certificates

MICROSOFT – AZURE

AZURE DATA SCIENTIST ASSOCIATE
AZURE AI ENGINEER ASSOCIATE

Education

IST
BACHELOR'S DEGREE IN
ENGINEERING PHYSICS
Sep 2017 Lisbon

IST
MASTER'S DEGREE IN
MATHEMATICS AND APPLICATIONS
Sep 2020 Lisbon

References

- [1] Antonio Capela et al. "An Adaptive and Transferable Dialog Management System for Social Aware Task Execution". In: *EPIA Conference on Artificial Intelligence*. Springer. 2019, pp. 232–243.

Experience

MACHINE LEARNING INTERN

LIP SUMMER INTERNSHIP

July 2017 – August 2017 Lisbon, Portugal

- Data analysis on simulated data of di-Higgs production from CERN's ATLAS experiment.
- Development of a Machine Learning model with Neural Networks and Boosted Decision Trees to identify collisions that generate di-Higgs particles.

DATA SCIENTIST

DATA SCIENTIST CONSULTANT AT XPAND-IT

Oct 2020 – current remote work, Portugal

- Worked with the Data Science team at major portuguese bank for over 1 year. Some of my key responsibilities included:
 - creating ETL pipelines using pyspark that were orchestrated with Kedro and Apache Airflow;
 - Development of Machine Learning models to be used by other teams at the bank.
- Developed a classification model in Azure Databricks for a major european agency. The model, a gradient boosting tree (LightGBM), was implemented as a real-time inference model in a Kafka stream.
- Worked for an Irish Startup, where we developed an image classification model. The model utilized a Convolutional Neural Network implemented with Keras, leveraging transfer learning from the VGG16 model.
- Performed sentiment analysis using Azure Cognitive Services and keyword extraction with YAKE to identify reasons for complaints in feedback forms.
- Currently working for a large retail company, working on data handling and forecasting in Azure Databricks. My responsibilities involve working data pipelines for data ingestion and ML model monitoring.

Personal Projects

WRITING AND INTERPRETER

LEARNING TO CODE IN RUST

In my personal journey of learning Rust, I chose to follow the book: Writing An Interpreter In Go. This book describes the step-by-step process of implementing an interpreter from scratch for a toy language called monkey-lang with code examples written in Go. I took on the challenge of creating my own implementation in Rust.