



# António Capela

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## Links

GitHub **antcap96**  
in 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 • C • C++ • SQL • 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

### INSTITUTO SUPERIOR TÉCNICO

BACHELOR'S DEGREE IN ENGINEERING PHYSICS  
📅 Sep 2017 📍 Lisbon

### INSTITUTO SUPERIOR TÉCNICO

MASTER'S DEGREE IN MATHEMATICS AND APPLICATIONS  
📅 Sep 2020 📍 Lisbon

## 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.
- Application of Machine Learning techniques like Neural Networks and Boosted Decision Trees to discriminate *background* collisions from di-Higgs generating collisions.

### DATA SCIENTIST

#### DATA SCIENTIST CONSULTANT AT XPAND-IT

📅 Oct 2020 – current 📍 remote work, Portugal

- Developed a kafka stream for a major european agency to perform real time inference using a model trained using pyspark in azure databricks that was serialized with MLeap. A kibana dashboard was setup to monitor the model performance over time.
- Worked with the Data Science team at a portuguese major bank. The work consisted of data analysis and transformation using pyspark to create kedro pipelines automated with airflow and the creation of Machine Learning models.
- Worked with an Irish Startup to develop an image classification model automated using azure Data Factory

## Personal Projects

### SQLINPYTHON

#### SQL LIBRARY IN PYTHON

Inspired by python code that created strings containing SQL queries and with the goal of improving my knowledge in: SQL, creating a python library and static typing in python with mypy, I ended up developing from the ground up a toy library to mimic SQL syntax but using python objects with static checks that ensure the SQL syntax is valid.

## 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.