# PIETRO PASSARELLA

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github.com/PIETRO-ing in linkedin.com/in/pietro-passarella

I am a Data Scientist with a background in aerospace engineering actively looking for a new role in Berlin or in Germany. I want to work for a mobility company or startup looking to reduce our carbon footprint and enhance the customer experience. I am skilled at explaining technical topics to non-technical stakeholders.

### **TECHNICAL SKILLS**

Data Science Python, Bash, SQL, Metabase (Python 3+ years: Pandas, Numpy, Matplotlib, Seaborn,

scikit-learn)

Machine Learning Regression, Classification, Time Series Analysis, Neural Network, Cloud service: AWS

**Deployment** Keras, TensorFlow, Docker, Flask, Git (version control)

Mathematics Calculus, Linear Algebra, Statistics (e.g., A/B test, confidence intervals, error calculation)

Aerospace Structural Engineering, Analytical Mechanics, Orbital Mechanics, Flight Dynamics, Fluid

Mechanics

# **PROJECTS**

Price prediction Housing Price Predictions

based on regression Supervised Learning (Gradient Boosting Regression, CNN1-d & DNN)

Pre-processing using RFE, PCA

Tools: Tensorflow, Matplotlib, Seaborn, scikit-learn

Real-time prediction Subway departures (S+U Alexanderplatz)

of departures and delays

Implementation of a dockerized data pipeline with the following workflow:

Collect departure information from BVG Berlin & Brandenburg rest API using Requests

module.

Store the retrieved information in MongoDB.

Build an ETL job to:

- extract the departures from MongoDB - transfer the info to Postgres database

- make constant gueries to keep the delay information up to date

- post via a bot

Recommender

System (Group Project)

Movie Recommender System

Built a movie recommender with a web interface utilizing the small movielens dataset, which

includes a collection of 9742 movies previously rated by 610 users.

The aim of the project was to explore and utilize the surprise library and surprise's famous

SVD algorithm, then show our outcomes via a web app built with flask.

SQL - Docker SQL - Docker

Built a database which consists of three tables with all the employees

information and made some quiries.

Everything running inside docker containers and orchestrated with docker-

compose

Tools: Docker, PostgreSQL, sqlalchemy,



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#### **EDUCATION**

2021 Data Science Bootcamp

Spiced Academy, Berlin

2020 Bachelor Degree in Aerospace Engineering

Politecnico di Milano

## **WORKING EXPERIENCE**

2020-2021 Tutor, Special for Needs Student - Polymnia S.R.L., Verona, Italy

> Taught STEM subjects (Maths, Physics, Calculus, Linear Algebra, Classical Mechanics) to students with learning difficulties (dyslexia, dyscalculia, demotivation) and enabled them to

improve their grades by adopting a customized study method.

2010 - 2019 Opera Festival, Verona, Italy

Early career in the entertainment and music industry (e.g., stage support, sound engineer)

Music Degree: Jazz Trumpet, Scuola Civica Jazz Milan, Italy

#### LANGUAGE SKILLS

**English** Fluent

Italian Mother tongue

Beginner German

#### **INTERESTS**

Literature, Art, Jazz, African American culture, Revolutionary Women, Cycling, Mountain Climbing

