




# PIETRO PASSARELLA

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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

<b>Data Science</b>	Python, Bash, SQL, Metabase (Python 3+ years: Pandas, Numpy, Matplotlib, Seaborn, scikit-learn)
<b>Machine Learning</b>	Regression, Classification, Time Series Analysis, Neural Network, Cloud service: AWS
<b>Deployment</b>	Keras, TensorFlow, Docker, Flask, Git (version control)
<b>Mathematics</b>	Calculus, Linear Algebra, Statistics (e.g., A/B test, confidence intervals, error calculation)
<b>Aerospace</b>	Structural Engineering, Analytical Mechanics, Orbital Mechanics, Flight Dynamics, Fluid Mechanics

## PROJECTS

<b>Price prediction based on regression</b>	<a href="#">Housing Price Predictions</a> Supervised Learning (Gradient Boosting Regression, CNN1-d & DNN) Pre-processing using RFE, PCA Tools: Tensorflow, Matplotlib, Seaborn, scikit-learn
<b>Real-time prediction of departures and delays</b>	<a href="#">Subway departures (S+U Alexanderplatz)</a> 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: <ul style="list-style-type: none"><li>- extract the departures from MongoDB</li><li>- transfer the info to Postgres database</li><li>- make constant queries to keep the delay information up to date</li><li>- post via a bot</li></ul>
<b>Recommender System (Group Project)</b>	<a href="#">Movie Recommender System</a> 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.
<b>SQL - Docker</b>	<a href="#">SQL – Docker</a> Built a database which consists of three tables with all the employees information and made some queries. Everything running inside docker containers. 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
- German* Beginner

## INTERESTS

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