# PLAMEN PASLIEV

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## **SUMMARY**

Data Science MSc graduate with 2+ years of experience in project work. Team player with the desire to solve business problems using machine learning and data analytics tools. Worked on all development levels from problem formulation to pushing and maintaining models in production.

### WORK EXPERIENCE

Wayfair GmbH

Data Scientist

Jun 2019 - Present Berlin, Germany

- Fraud Detection
  - Developed a Machine Learning algorithm detecting falsely declined, non-fraudulent orders.
- Predicting Customer Problems
  - Personalized the Help and Contact page of Wayfair.
  - Developed different machine learning solutions such as GBDT (XGBoost and CatBoost) and a neural network (Keras with TensorFlow) with top-3 accuracy of 90%.
  - Updated and maintained models deployed in production (Airflow).
  - Worked on collecting and processing data, data exploration, modelling, testing and pushing to

Technology stack: Python, Google Cloud Platform (GCP) stack, Git, Airflow, Docker

Neurocat GmbH

Student mentor

Apr 2019 - Jun 2019 Berlin, Germany

Artificial Intelligence Intern

- Integrated and tested popular explanation methods using Python and TensorFlow.
- Researched explanation methods and proposed a systematic approach to categorize them.

Technology stack: Python (Numpy, Pandas, TensorFlow, PyTest)

# Technical University of Eindhoven

Aug 2016 - Feb 2017 Eindhoven, Netherlands

- Organized individual and group weekly meetings with twenty-four first-year students.
- Taught effective study skills and helped in practical matters.

#### EDUCATION

## EIT Digital Master School

Sep 2017 - Feb 2020

MSc in Data Science

Berlin, Germany / Milan, Italy

- · Double-degree master program combining technical education with innovation and entrepreneurship.
- Obtained two MSc degrees, awarded from Technische Universitat Berlin and Politecnico di Milano, as well as the EIT certificate.
- Awarded a two-year, merit-based, scholarship including a tuition fee weaver and monthly allowances.

# Technical University of Eindhoven

BSc in Computer Science and Software Engineering

September 2014 - July 2017 Eindhoven, Netherlands

- Acquired knowledge about theory, algorithms, software development, system architecture, data structures and information systems.
- Took part in many software engineering group projects: from app development in Java to web development with HTML, JavaScript, Angular, NodeJS, Firebase NoSQL. Practiced agile development and Scrum.

#### PROJECTS AND PUBLICATIONS

# Explainable Fraud Detection

Blogpost

Dec 7, 2020

Wayfair Tech Blog

• Contributed to the Wayfair Tech Blog with an article about Explanation Methods applied to Fraud Detection. Created a Google Colaboratory notebook with illustrating examples.

# Fairwashing Explanations with Off-Manifold Detergent

Jul 1, 2020

International Conference on Machine Learning (ICML)

• This paper is a continuation of my master's thesis work. We show how ML explanations can be critically manipulated and propose a way to make them more robust.

# Training Neural Networks with Manipulated Explanations

Apr 2019 - Feb 2020

Master's thesis

Technische Universität Berlin, Germany

- Used PyTorch to train image recognition models with over 92% accuracy.
- Extended current research and showed how popular explanation methods can be arbitrarily manipulated.

# Neural Style Transfer for Furniture

Dec 2019

Wayfair hackathon

Berlin, Germany

- Used Keras and TensorFlow to generate artificial pieces of furniture fitting a desired home style.
- Beat hundreds of engineers and reached the hackathon finals.

# Data Science and Machine Learning Bootcamp

Mar 2019

Udemy Course

• Learned how to use popular popular ML and data manipulation tools. Applied skills to multiple Capstone projects.

# Machine Learning for Financial Data Summer School

Jul 2018-Aug 2018 Budapest, Hungary

- Worked on business assignments for innovative use of machine learning in cooperation with companies and start-ups from the Budapest ecosystem.
- Awarded second place out of eight groups.

### Recommender System 2017 Challenge

Recommender Systems course

Sep 2017 - Feb 2018

Politecnico di Milano, Italy

- Used data from over 1M interactions (100K tracks belonging to 57K playlists) to recommend songs to users.
- Created an ensemble of machine learning solutions such as Collaborative filtering, Content-based filtering and Sparse Linear Method (SLIM) which outperformed individual methods.

# **SKILLS**

Python stack

Programming languages

Databases

Machine Learning Deep Learning

Data Analysis and Data Visualization Data Cleaning and Data Manipulation

Version Control **Cloud Computing** Workflow management Interpersonal Skills Agile methodologies

**Mathematics** 

Languages

NumPy, Pandas, SciPy, Jupyter Notebooks

Python, Java, Javascript BigQuery, MSSQL, PostgreSQL, Firebase NoSQL

Scikit-learn

PyTorch, Keras, TensorFlow

Matplotlib, Seaborn

NumPy, Pandas, SciPy, sklearn

Google Cloud Platform (GCP)

Apache Airflow

Presentation, Teamwork, Communication, Organization

Scrum, Kanban

Probability, Statistics, Linear Algebra

English (Full Professional Proficiency), Bulgarian (Native)

### HOBBIES

Reading, sports, meditation, mindfulness, self-help, travelling, video games. Active gym member for the past decade. Interested in the science behind nutrition and different training patterns.