

# Muhammed Büyükkınacı

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## Professional Summary

Results-driven Data Scientist with over 6 years of experience specializing in advanced statistical analysis and machine learning applications. Proficient in developing and deploying production-grade models for predictive analytics, time series forecasting, and optimization problems. Strong expertise in utilizing cloud services and big data technologies including AWS and Apache Spark. Committed to driving innovation and efficiency through collaboration across cross-functional teams and integrating robust data science practices into business strategies.

## Skills

### Machine Learning:

Python, LightGBM, PyTorch, TensorFlow, Apache Spark, Statistical Modeling, Time Series Forecasting

### Cloud Services:

AWS, Docker, Kubernetes

### Programming:

Python, SQL, Linux, R

## Professional Experience

### *Data Scientist*

Hepsiemlak –

Dec 2021 - Present

- Developed machine learning models to predict sales and rental prices of real estates, utilizing statistical analysis to enhance model accuracy and deploy insights effectively.
- Architected and implemented a RESTful API for real estate price predictions, leveraging advanced machine learning techniques.
- Executed multiple image analysis projects focusing on regression, segmentation, and classification to drive analytics efficiency.
- Designed and deployed a comprehensive Fraud Detection System for the Affiliate Marketing initiative, reducing fraudulent activities significantly.
- Utilized Apache Spark to compute dynamic price indexes based on geographic data, optimizing pricing strategies in real-time.

### *Data Scientist*

Urbanstat –

Oct 2019 - Dec 2021

- Constructed ML-based risk scoring models for automobile and property insurance, achieving a notable reduction in loss ratios by up to 7%.
- Engineered predictive models to identify potential wildfires and hazards in California and the West Coast using sophisticated machine learning algorithms.

- Developed a churn analysis framework for household insurance policies leveraging statistical techniques to support business decision-making.
- Employed SHAP for enhanced interpretability of model outputs, contributing to stakeholder buy-in on mathematical findings.

### ***Fraud Systems Engineer***

Turkcell –  
Sep 2018 - Oct 2019

- Engaged in an ML project aimed at predicting customer objections to invoices, improving customer retention strategies.
- Oversaw Fraud & Credit Control services, managing both Physical and Virtual Machine infrastructures to ensure optimal performance.
- Led the deployment of vital software packages in a production environment, ensuring a seamless transition from development to live operations.

### ***Junior Data Scientist***

Organon Analytics –  
Apr 2018 - Aug 2018

- Engineered interactive dashboards for end users using the Shiny library in R, leading to improved data accessibility and visualization.
- Conducted Customer Segmentation Analysis through clustering techniques, providing actionable insights for targeted marketing strategies.

## **Projects**

### ***Django App***

Developed a dynamic Django application deployed on a DigitalOcean VPS, enhancing service delivery for users.

### ***Bitcoin Trading Series***

Constructed an LSTM model to predict price volatility for 4-hourly Bitcoin data, yielding a substantial trading signal that informed investment decisions.

### ***Image DeSegmentation***

Created a simulated dataset by overlaying text on images and trained a UNet model via TensorFlow to successfully remove text from images, showcasing advanced deep learning capabilities.

## **Education**

### ***Master of Science in Statistics***

Boğaziçi University  
Graduation Year: 2012

Relevant Courses: Advanced Statistics, Data Mining, Time Series Forecasting, Operations Research

## **Certifications**

Introduction to Amazon Web Services, Issued:

Docker A-Z™, Issued:

Kubernetes Basics, Issued:

Complete MLOPS Bootcamp, Issued:

Linux A-Z™, Issued:

Big Data A-Z™, Issued:

Introduction to Apache Airflow, Issued:

## **Technical Proficiencies**

Machine learning libraries: PyTorch, XGBoost, LightGBM, Scikit-Learn, TensorFlow, Pandas, NumPy

Programming skills: AWS, Airflow, Kubernetes, Microsoft Office, MLOps, Git, Linux, SQL, Docker, Python, R

## **References**

Available upon request.