Muhammed Büyükkınacı

Senior Data Scientist

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About me

I am a T-shaped Data Scientist who has general knowledge and experience on different IT areas such as Machine Learning Engineering, Amazon Web Services, System Engineering, Back-End Development, Data Engineering and Software Testing. I have more than 7 years of experience in Python.

My passion is to bring innovation and value through cross-functional collaboration. I follow Design Principles to build real-world Data Science projects with end-to-end pipelines. I am also working on integrating MLOps practices into my work. Beyond these aspects, I am not only an IT Engineer but also an eager lifelong learner.

Besides my technical expertise, I am an extroverted and open-minded person with excellent communication skills. I leverage both my soft and hard skills to position myself as a leading engineer in the industry.

Experience

Dec 2021 Present   **Senior Data Scientist**   **Hepsiemlak**

- Designed and implemented an ETL pipeline using Apache Airflow on Kubernetes, automating data processing from multiple sources, optimizing performance, and ensuring efficient data integration for enhanced decision-making and operational efficiency.
- Developing a Hybrid Recommendation System based on Content Based Filtering and collaborative data. Finding similar listings with a Siamese Neural Network. Serving as the backbone of personalized emails, pushes and widgets.
- Predicting sales and rental prices of homes using Machine Learning. Finding low-priced homes. Building up a REST API that predicts prices of homes via ML models real-timely.
  Stack: Python, LightGBM, FastAPI, Hadoop, AWS, Docker.
- Developing a watermark removal project in order to increase photo quality.
  Stack: Python, PyTorch, Transfer Learning, RabbitMQ, Docker, AWS.
- Developing an image quality scoring project to be used among different places such as filtering appropriate images, sorting images, choosing showcase image etc.
  Stack: Python, PyTorch, Transfer Learning, Kafka, Docker.

Oct 2019 Dec 2021   **Data Scientist**   **Urbanstat**

- Created an ML based risk scores of automobiles & houses for the use of insurance companies. Lowered loss ratios up to 7%.
  Stack: Python, Flask, LightGBM, PostgreSQL, Docker.
- Predicted wildfires and dangerous regions in California & West Coast of USA using ML algorithms. Outperformed predictions of state government. Used SHAP library for interpretable outputs.
- Developed an ML based churn analysis for house policies.

Sep 2018 Oct 2019   **Fraud Systems Engineer**   **Turkcell**

- Took part in an ML project aiming to predict which customers were going to object to their invoices. Dealt with an unbalanced problem.
- Monitored Fraud & Credit Control services of Turkcell. Managed several Physical & Virtual Machines. Deployed software packages on live environment. Used Linux and SQL a lot.

Apr 2018 Aug 2018   **Junior Data Scientist**   **Organon Analytics**

- Designed dashboards for end users via Shiny library of R.
- Dealt with Customer Segmentation Analysis through Clustering.

Education

2012 Sep 2018 Jan   **Bachelor of Science, Industrial Engineering**   **Boğaziçi University**

- Took Statistics, Data Mining & Time Series Forecasting courses.
- Forecasted hourly electricity consumption of a specific region using different Machine Learning Algorithms in my graduation project.

Achievements
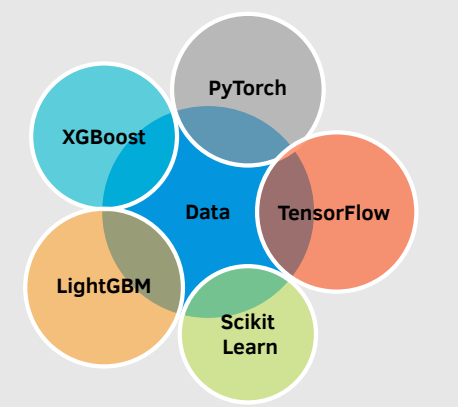
Kaggle   **Kaggle Expert**

- Collected 3 silver and 2 bronze medals. Joining 20+ competitions.

2012 YGS   **Ranked 300th in Turkey**

- Attained a position of 300th among 1.86 million candidates in the 2012 YGS (The Transition to Higher Education Examination).
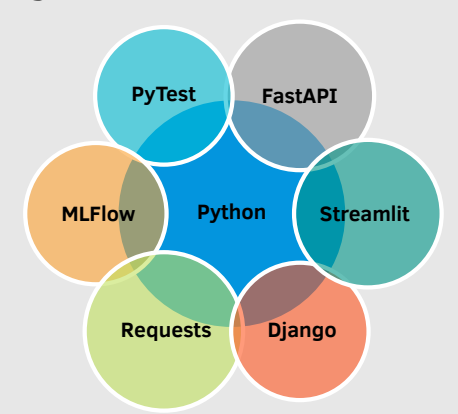
ML Libraries

Technical Skills

- Python

- AWS • Airflow • Docker

- Linux • SQL • Git

- Microsoft Office • MLOps • Hadoop

- Jenkins • Spark • Kubernetes

Python Libraries

Languages

Turkish (C2 - Native Language)

English (C1 - Professional Work Ability)

Arabic (A2 - Elementary Level)

Projects

Django App	**muhammedbuyukkinaci.com**	**GitHub Link**

- A Django Application deployed on a VPS of DigitalOcean.

Behavioral Economics — **The Effect of Costly Reporting on Coordination Behavior**

- A Study of Helping and Retaliation in behavioral economics.
- Developed the experiment using Python's OTree library, which is a Django wrapper.
- Prepared the experiment for different scenarios.
- The developed project to be used in the academic research of respectable professors such as Arhan Ertan, Louis Putterman and Kenju Kamei.

Ecological Inference — **Unveiling The Dynamics of Vote Flows in Turkey's Elections**

- The project developed for a research center focusing on Social Sciences. Aimed to understand vote flows between political parties in different elections.
- Used PyEI library of Python in order to develop an ecological inference model. County-level data used to build the model.
- Had converged results with reasonable 95th percentile confidence intervals for the 2023 and 2024 elections.

Certificates

AWS — **Introduction to Amazon Web Services** — **Certificate Link**

- Completed a 25-hours AWS Course on Udemy.
- Learned fundamentals of AWS and services like EC2, S3, IAM, VPC, RDS, ECR, EKS and DynamoDB etc.

Docker — **Docker A-Z™** — **Certificate Link**

- Completed a 16-hours course on Udemy. Learned basics of Docker.

Kubernetes — **Kubernetes Basics** — **Certificate Link**

- Completed a 17-hours Kubernetes Course on Udemy.
- Learned fundamentals of Kubernetes and K8s objects such as Pod, Deployment, Service, Ingress, Cronjob etc.

MLOps — **Complete MLOPS Bootcamp** — **Certificate Link**

- Completed a 3.5 hours MLOps course.
- Learned useful tools for MLOps practices.

Linux — **Linux A-Z™** — **Certificate Link**

- Completed a 10-hours Linux Course on Udemy.
- Elevated my Linux knowledge to an advanced level.

Big Data — **Big Data A-Z™** — **Certificate Link**

- Completed a 12-hours Big Data Course on Udemy.
- Learned basics of Apache Kafka, Apache Hive, Hadoop, Apache Spark and other NoSQL technologies.

Airflow — **Introduction to Apache Airflow** — **Certificate Link**

- Completed a 2.5 hours Airflow course.
- Learned fundamentals of Airflow.