MUHAMMED BERK ÖNDER

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WORK EXPERIENCE

P.I. Works (Remote) Kurtköy, İST
Machine Learning Engineer 07 2022 - Present

- Developed a Telco Chatbot using **LLM** frameworks with LangChain and Flowise, integrating gpt-3.5-turbo model with OpenAI's API and locally tested on open-source models such as Mistral and LLama2 with Ollama.
- Led the creation of a Heatmap **Forecasting** system, using football match data to predict network traffic volume through **regression** analysis. Managed end-to-end processes encompassing data cleaning, regression model selection, and evaluation.
- Implemented **Multivariate Anomaly Detection** to improve detection capabilities for scenarios like sleeping cells and special event detection.
- Conducted Univariate **Anomaly Detection** on **Time Series** data to detect sleeping cells in LTE networks using **Clustering** algorithm, focusing on data preparation, model evaluation, and hyperparameter tuning.
- Provided support to team members and collaborated with other teams as needed for project execution.
- Developed a synthetic data generation technique using statistical methods such as Monte Carlo simulations to enhance data granularity.

Sınav (On-site) Halkalı, İST
Physics Instructor 09 2021 - 02 2022

- Physics Instructor with a Master's degree. Experienced in teaching physics to classes of up to 30 students, developing curriculum. Strong communication skills and commitment to student success.

PROJECTS

Steam Game Recommendation
Project Link: `https://github.com/berkmonder/SteamGameRecommendation-Clustering`

- Built a game recommendation system using **clustering techniques** on Steam data. Recommends 10 similar games based on user preferences.

Food Review Topic Modeling
Project Link: `https://github.com/berkmonder/FoodReviewTopicModeling-Clustering`

- Implemented topic modeling using Latent Dirichlet Allocation (**NLP**) on food review data. Clusters reviews based on topics with more than %90 F1 score.

EDUCATION

İstanbul University Fatih, İST
MSc, High Energy and Plasma Physics **GPA: 3.63** Graduation Date: 2024
BS, Physics **GPA: 3.31** Graduation Date: 2021

Relevant Courses: Advanced Statistical Methods in Physics I/II, Numerical Methods and Applications in Physics I/II, Chaos: Theory and Applications, Calculus I/II/III, Differential Equations, Mathematical Methods, Programming I/II.

SKILLS

Experienced Data Scientist with a background of building and deploying ML models in Telecommunication industry. | Expert in Python, SQL, Bash, Git, Docker, FastAPI, MLflow, Pandas/Polars, Scikit-Learn, TensorFlow, PyTorch.