GÖKTUĞ ÖCAL

Ghent/Belgium • goktugocal41@gmail.com • *github.com/GoktugOcal*

EDUCATION

BOĞAZİÇİ UNIVERSITY Istanbul

MSc in Computer Engineering 2021 - 2024

- Relevant Courses: Advanced DL, Testing and Verification Tech. in ML, NLP, Cloud Computing, Operating Systems
- Researched "Robust Time Series Forecasting Models against Adversarial Attacks" and built LSTM-based robust forecasting models. *https://github.com/GoktugOcal/time-series-adversarial-attacks*
- Thesis topic was "Network-Aware Federated Neural Architecture Search". *https://github.com/GoktugOcal/NAFNAS*
- **Publication.** *Öcal, Göktuğ, and Atay Özgövde. "Network-aware federated neural architecture search." Future Generation Computer Systems 162 (2025): 107475.*

ISTANBUL TECHNICAL UNIVERSITY Istanbul

BSc in Control and Automation Engineering 2015 - 2020

- Volunteered at the Artificial Intelligence and Intelligent Systems Laboratory (AI2S) for 2 years. Studied robotics and AI-based time-series forecasting models.
- Assisted and managed a student club called OTOKON. Organized robotics and coding courses and events.

EXPERIENCE

DAIKIN EUROPE Ghent

Air Conditioning system manufacturer and provider 2024

Data Scientist

- Developing ML-powered predictive maintenance systems for residential air conditioning units on Databricks using Python and PySpark.
- Developing MLOps pipelines and systems in AWS and Databricks.

FORD OTOSAN Istanbul

Lead automotive manufacturer in the region

Data Scientist 2022-2024

- Developed a driver evaluation algorithm with Python and PySpark that aims to evaluate truck drivers in a fleet and detect the problematic drivers who need training in a specific behavior in terms of driving.
- Experience as a Scrum Master for the Data Analytics CoE team and was responsible for defining development, coding and deployment procedures.

REENGEN Istanbul

Provides sustainability and energy management products

Data Scientist 2020-2022

- Developed a time series analysis algorithm that detects the saving potentials in energy consumption in non-operating hours of retail and reduced the energy cost by %7 on average.
- Reduced the workload of customer teams by %40 by utilizing energy analysis tools by providing data analytics and algorithms with an API interface to the running services of analysis.
- Developed a statistics-based dynamic anomaly detection algorithm that detects anomalies caused by connection faults of IoT devices without using much memory.
- Created a humble procedure for the company for deploying and serving ML models, creating interfaces for running algorithms and building APIs for triggering algorithms.

Data Science Assistant (Part-Time) 2019-2020

- Developed time series forecasting models that forecast energy consumption of retailers, banks, and hospitals with a %6 error on average for the next 48 hours in hourly intervals by using LSTM models.

CERTIFICATION AND SKILLS

- Python, SQL, OOP, Tensorflow, Sklearn, Spark,
- Deep Learning, Machine Learning, Time Series Analysis, Statistical Modelling
- Big Data with PySpark, Datacamp, 2022 || SQL Fundamentals, Datacamp, 2022
- Machine Learning, Coursera, Stanford University, 2020
- IELTS, 7.0/9.0, 2021 || Dutch B2 Certificate, 2025

PERSONAL INFORMATION & PROJECTS

- Built F1 data analysis library for Python: *https://github.com/GoktugOcal/LiveF1*.
- Content creator in F1 data analytics: *https://x.com/f1bydata.*
- Deep interest in cinema, communication and graphical design.
- Really enjoy playing team sports, reading about movies and designing visual content.
- Trying to write about my interest on a personal blog. *goktugocal.com*