Mehmet Burak Sayıcı

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Education

- **Bilkent University** — Ankara, Turkey
  Bachelor of Science in Industrial Engineering — *Sept. 2016 – June 2020*

Experience

- **career.io** — Remote, Worldwide
  LLM Engineer — *Oct 2024 - Present*
  - **ML Engineering**: Developed the conversational AI for an LLM + RAG-driven interview prep product with real-time streaming for conversational mock interviews. Designed retrieval pipelines to search on company questions, prompt engineering to give insightful feedbacks, serving 5,000+ users monthly.
- **Gesund AI** — Remote, Worldwide
  Lead ML Engineer — *Sep 2021 - May 2024*
  - **Software Engineering**: First and lead engineer of Gesund MLOps Platform, listed in CB Insights AI 100 along with giants such as OpenAI at 2024, that is focusing on medical context, which role allows to develop the medical AI experience for end to end clinical validation of the CNN models along with inherent support of medical data. Dockerization of ML Models/platform services with the integration to the web-app via FastAPI.
  - **ML Engineering**: In-house Auto-ML platform for CV models. Clinical Model Validation/Subcohort Analysis of Medical CNN Models for Classification, Object Detection, Instance/Semantic Segmentation Models. Created a dockerized service for model/data debugging with weakness/similarity analysis via DL techniques and frameworks.
  - **MLOps**: Maintaining a python project built on MongoDB, RabbitMQ and ELK along with CI/CD pipelines.
- **Stanford University** — Mountain View, CA
  Undergraduate Visiting Research Internship — *June 2019 - Dec 2019*
  - **Research**: Analysis of the impact of Multi-Field of View Attention CNN architectures on TCGA-LIHC dataset. Coded the architectures at PyTorch and conducted experiments on Sherlock. Preprint published on ArXiv. Worked under supervision of Rikiya Yamashita, Prof. Daniel Rubin and Asst. Prof. Jeanne Shen.
- **Çalık Energy** — Istanbul, Turkey
  Data Scientist — *Sep 2020 - June 2021*
  - **Data Science**: Created time series forecasting models mainly based on boosted tree algorithms for day-ahead electricity load forecasting of 7000+ subscribers.
    Created time series forecasting framework/OPS that registers models with parameters and features, stores, and daily, allows model selections on historical data validation, tracks/ensembles/selects features for daily model performance improvement and analyzes feature importances for models/predictions with SHAP/ELI5/LIME

Projects

- **Why** : Framework Agnostic Explainable AI Library for Computer Vision
- **Micro Milling Parameter Estimation**: Worked on Bayesian Learning application on prediction of the forces and tool life for the micro milling processes. Mathematical modeling of tool wear and Bayesian Parameter optimization is done with MCMC methods via PyMC3, under supervision of Prof. Yiğit Karpat.

Teaching Experience

- **Youtube Channel on Machine Learning and Deep Learning**: Tutoring on ML and DL. +13k subscribers and 600k+ views
- **Beyond MNIST Example: Practical Convolutional NNs on Udemy**: Practical Convolutional Neural Networks

Publications

- **Analysis Of Multi Field Of View CNN And Attention CNN On HE Stained Whole-slide Images On Hepatocellular Carcinoma**: (Preprint), MB Sayıcı, R Yamashita, J Shen, D Rubin

Programming Skills

- **Languages**: Python, Matlab, R **Technologies**: MongoDB, FastAPI, Docker, RabbitMQ, Git, Linux, EC2