Batuhan Edgüer

AI Researcher | ML Engineer

CONTACT

batuhanedguer@gmail.com
+90 530 551 34 95
Istanbul, Turkey
batuhan-edguer
BestSithInEU
bestsithineu.github.io
10.03.1995
Military Service Completed

SKILLS

Machine Learning
PyTorch, TensorFlow, Keras, HuggingFace, scikit-learn, XGBoost, LightGBM, vLLM

Programming Languages
Python, C/C++, Rust, Java, TypeScript, SQL

ML Infrastructure
Docker, Kubernetes, MLflow, FastAPI, Celery, Git, Linux, LaTeX

Parallel Computing
CUDA, OpenMP, MPI

Databases
PostgreSQL, Redis, MongoDB, Qdrant

Spoken Languages
Turkish (Native), English (Fluent)

RESEARCH INTERESTS

- Meta-Learning & Few-Shot Learning
- Large Language Models & NLP
- Deep Reinforcement Learning
- High-Performance ML Systems

PROFESSIONAL SUMMARY

ML engineer and AI researcher with hands-on experience building end-to-end ML pipelines, fine-tuning LLMs (QLoRA/Qwen3), and deploying anomaly detection systems for satellite telemetry. Specializing in meta-learning, deep reinforcement learning, and NLP. Skilled in parallel computing (CUDA, OpenMP, MPI) and scalable ML infrastructure. Currently pursuing an M.Sc. with thesis research on meta-learning for automated research paper analysis.

EXPERIENCE

Teaching Assistant — *Feb 2023 – Present*
Yeditepe University, Department of Computer Science — Istanbul, Turkey

- Designed and delivered lab sessions for Data Structures, Software Engineering, and AI serving 100+ students per semester, integrating Python-based ML workflows
- Developed automated grading pipelines, reducing turnaround time and improving evaluation consistency
- Mentored 20+ students on research-oriented projects spanning ML, reinforcement learning, and algorithm design
- Co-developed curriculum with faculty, integrating PyTorch, HuggingFace, and LLM-based workflows
- Courses: Data Structures & Algorithms, Software Engineering, Artificial Intelligence

Software Engineer & AI Engineer — *Feb 2022 – Aug 2022*
New Senses Uzay Teknoloji ve Sağlık Araştırmaları A.Ş. — Istanbul, Turkey

- Developed anomaly detection models for satellite telemetry and health sensor data using Python-based ML pipelines
- Designed end-to-end ML pipelines—data ingestion, feature engineering, model training, and deployment

EDUCATION

M.Sc. in Computer Science (Continuing) — *2022 – Present*
Yeditepe University, Faculty of Engineering — Istanbul, Turkey

- Thesis: *"Meta Modeling For AI Solutions Based on Existing AI Configurations"*
- Focus: Artificial Intelligence, Data Structures & Algorithms
- GPA: 3.47 / 4.00 | Coursework: Machine Learning, Deep Learning, Reinforcement Learning, Parallel Computing

B.Sc. in Biomedical Engineering — *2013 – 2020*
Yeditepe University, Faculty of Engineering — Istanbul, Turkey

- Participated in "Karaciğer Algoritmaları Yarışıyor" medical imaging hackathon (2018, Dokuz Eylül University)

PROJECTS

Meta-Learning Research System (M.Sc. Thesis, In Progress) — GitHub
Extracts structured metadata from AI/ML papers and recommends optimal model configurations for new problems. Features QLoRA fine-tuning (Qwen3-8B/Unsloth), calibrated active learning, multi-LLM annotation pipeline, and a Svelte validation UI.
FastAPI, Celery, PostgreSQL, Qdrant, Redis, MLflow, Docker

Compact Monocular Depth Estimation (Paper, In Preparation) — GitHub
Combines monocular depth estimation with synthetic stereo pair generation. Benchmarks multiple architectures and loss functions with cross-dataset evaluation on KITTI and NYU Depth V2.
Python, PyTorch, OpenCV, timm, HuggingFace

Bitcoin Price Prediction — GitHub
NLP-driven prediction combining sentiment analysis on news headlines with financial indicators. Benchmarked 18 ML models + CNN/LSTM architectures.
Python, TensorFlow, scikit-learn, XGBoost, NLTK

RL Board Game Agent — GitHub
Deep Q-learning agent for a 7×7 board game with experience replay, configurable network, and PvP/AI modes.
Python, Keras, PyQt5

Parallel Fractal Renderer — GitHub
Mandelbrot/Julia renderer comparing three parallelization paradigms: OpenMP (CPU), CUDA (GPU), MPI (distributed).
C/C++, Python, PyQt5

cc-vox — Claude Code Voice Plugin — GitHub
TTS plugin for spoken summaries of Claude Code responses. Multi-backend with smart GPU awareness.
Python 3.11+, Qwen3-TTS, Fish Speech, CUDA

Caelestia (Contributor, 2.3k+ stars) — GitHub
Open-source contributor to a Hyprland-based Linux desktop environment.

TypeScript, Shell