Mert Arcan

Ankara, 06550 | +90 (538) 626-8585 | mertarcan8@gmail.com
linkedin.com/in/mertarcan | github.com/Arjein | mertarcan.com

AI ENGINEER

MSc Engineering with Management graduate from King's College London with a BSc in Computer Engineering, specializing in computer science, machine learning and data science. Experienced in designing and deploying neural network models: building architectures from scratch, fine-tuning large language models (LLMs) and state-of-the-art models, utilizing PyTorch for NLP, computer vision, and time-series forecasting. Driven to advance artificial intelligence through continuous learning, research, and hands-on innovation. Committed to delivering AI-driven solutions with technical excellence, user-focused design, and strong team collaboration to continuously improve and push boundaries in AI technologies. Holding a UK Graduate Visa valid until January 2027, open to relocation to the UK, and seeking impactful roles in AI, ML, or Software Engineering domains.

PROFESSIONAL AND TECHNICAL SKILLS

- Experience with designing, training, and deploying machine learning models, including tree-based statistical models, deep neural networks, and large language models.
- Hands-on experience implementing deep learning architectures such as CNNs, RNNs, Transformers, and GNNs with PyTorch for AI applications.
- Exposure to building NLP pipelines using Hugging Face Transformers for language generation.
- Familiar with MLOps practices including model deployment, monitoring, and CI/CD integration.
- Applied reinforcement learning techniques to solve continuous control tasks.
- Competent in data cleaning, data preprocessing, feature engineering, and exploratory data analysis using Pandas, NumPy, and Matplotlib.
- Solid understanding of software development fundamentals: modularity, version control, scalability.
- Experienced in Python, Java, JavaScript, PostgreSQL for backend, API integration, and JSON handling.
- Familiar with cloud computing platforms and tools including Google Cloud, Google Colab, Docker, Huggingface Spaces, and Git for model deployment and workflow management.
- Adept at documenting technical concepts through articles, notebooks, and collaborative teamwork.
- Leadership experience as Event Manager at KCL Turkish Society by organizing events.
- Strong analytical skills, applying data-driven decisions to drive impactful and consistent AI solutions.

WORK EXPERIENCE

Mobile Application Developer (Internship) | FDNSoft, Ankara — Jun 2022 – Jul 2022

- Developed the login/register interface and backend for a mobile application using Dart, Flutter, and Firebase, ensuring secure user authentication and real-time data storage.
- Collaborated directly with UI/UX designers for front-end development, demonstrating effective communication skills and effective teamwork throughout the development process.

Systems Engineer (Internship) | SOLUS, Ankara — Aug 2021 – Sep 2021

- Managed and optimized Nginx servers, demonstrating advanced skills in Linux system configuration and server management.

EDUCATION

Master of Science | King's College London, London — Graduation Year (2024)

Bachelor of Science | TED University, Ankara — Graduation Year (2023)

PROJECTS

BNB Horizon — Feb 2025 – Current

- Fine-tuned IBM's Granite-TimeSeries-TTM-R2 deep learning model to forecast Binance Coin (BNB) prices at 5-minute intervals, leveraging advanced machine learning techniques.
- Utilized PostgreSQL to efficiently store and manage large volumes of kline data, model predictions, and external indicators.
- Developed and deployed a Flask-based REST API to seamlessly integrate machine learning model outputs with frontend systems, incorporating CI/CD pipelines to automate deployment and updates.
- Built and launched an interactive React application to visualize real-time price data, enabling effective comparison between actual kline values and model-predicted close prices, enhancing user experience.

Shakespeare-GPT — Feb 2025

- Developed a Transformer-based NanoGPT architecture (9M parameters) from scratch using PyTorch, training it on the TinyShakespeare dataset (1M characters) to generate Shakespeare-like text samples.
- Applied character-based tokenization, batching, and optimization techniques to streamline training, achieving efficient convergence on limited hardware resources.

OASIS Alzheimer Classifier — Jan 2025

- Built a TinyVGG Convolutional Neural Network (CNN) from scratch (23k parameters) for computer vision-based classification of Alzheimer's stages using OASIS MRI data (86k samples), achieving 96% accuracy on a 4-class task.
- Improved model robustness by applying preprocessing techniques and weighted loss to address class imbalance, achieving a balanced F1-score of 96%.

Amazon Reviews Classifier — Dec 2024

- Built a Logistic Regression-based sentiment analysis model using scikit-learn on a balanced dataset of 3.6M Amazon reviews, achieving 92% accuracy, with the methodology presented in a Medium article.
- Conducted data pre-processing, feature engineering, and data analysis to optimize model performance.

SatNet: Skeletal Attention Network — Sep 2023 – Aug 2024

- Designed and implemented SatNet, a reinforcement learning model combining Graph Attention Networks (GAT) and Beta distribution for precise and reliable articulated robot control.
- Enhanced sample efficiency and robustness in continuous control tasks through Beta policy integration.

LANGUAGE SKILLS

- English – Professional Proficiency (IELTS 7.5)
- Turkish – Native