

OZGE KARASU

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EDUCATION

Queen Mary University of London — London, UK <i>MSc in Artificial Intelligence, Distinction</i>	Sep 2024 — Sep 2025
Sabanci University — Istanbul, Turkey <i>BSc in Computer Science and Engineering</i>	Sep 2019 — Jan 2024
Umea University — Umea, Sweden <i>Erasmus Mobility Student, Physics Department</i>	Jan 2022 — Jun 2022

PROFESSIONAL EXPERIENCE

Udemy — Reverse Mentorship Programme <i>Mentor to Data Science & AI Manager at Udemy</i>	Mar 2023 — Jun 2023
Engaged in Udemy's Reverse Mentorship Programme to exchange insights on AI applications and strategic data use in leadership.	
Siemens — Regional Process Office <i>Data Analyst</i>	Jul 2022 — Jan 2023
- Designed and tested analytics workflows using Tableau, Power BI, and MSSQL to enhance reporting efficiency and decision support. - Processed large-scale operational data to uncover production trends and improve forecasting accuracy in industrial processes.	

RESEARCH EXPERIENCE

Queen Mary University of London <i>MSc Thesis — Green Energy Demand Forecasting using Volatility-Aware LSTM</i>	Oct 2024 — Sep 2025
- Built a 23-year UK renewable energy dataset integrating weather, market, and production variables to enable comprehensive demand forecasting analysis. - Developed statistical (ARIMA, SARIMA, SARIMAX, GARCH) and deep learning (LSTM, Dual Attention LSTM) models to compare short- and long-term predictive performance. - Introduced a Residual-Aware Attention LSTM that improved forecasting stability and accuracy for renewable energy demand estimation.	
Sabanci University <i>Graduation Project — Reality Capture from Multiple Video Cameras</i>	Feb 2023 — Jan 2024
- Generated 3D vehicle models from multi-view imagery using photogrammetry for Intelligent Transportation Systems. - Enhanced object detection and tracking precision through multi-camera data fusion.	
University of Cambridge — Development i-Teams <i>Conservation Copilot: Evidence-Based Decisions for Biodiversity Net Gain</i>	Jan 2025 — Mar 2025
Explored AI-driven methods for ecological decision-making with a multidisciplinary team.	

SELECTED PROJECTS

Context-Aware Dialogue Act Tagging with CNN-BiLSTM Feb 2025 Apr 2025
Queen Mary University of London

- Advanced conversational context understanding by integrating sequential and semantic cues through an attention-based CNN-BiLSTM model.

CNN Architecture Search with Genetic Algorithms Oct 2024 - Dec 2024
Queen Mary University of London

- Demonstrated the efficiency of evolutionary optimisation by automating CNN architecture discovery for complex pattern recognition tasks.

Gene Enrichment Analysis in Estradiol-Treated MCF7 Cells Feb 2021 - May 2021
Sabanci University

- Revealed hormone-driven transcriptional regulation in breast cancer cells by mapping enriched biological pathways and gene ontology processes.

Comparative Genomic Analysis of SARS-CoV-2 Jan 2021 Mar 2021
Sabanci University

- Identified conserved genomic regions and key Spike protein mutations influencing viral infectivity through large-scale comparative sequence analysis.

AWARDS & HONORS

- **Leadership Award (2023)** — Recognised by Sabanci University for my contributions and supervisory in the Mentorship Programme, awarded by the Board of Trustees and Rector.
- **Erasmus+ Scholarship (2022)** — Umeå University, Sweden.
- **Dean's Honors List (2020–2021)** — Sabanci University.

LEADERSHIP EXPERIENCE

Sabanci University — Mentorship Programme Sep 2022 — Jan 2024
Team Supervisor

- Led a team of 60 mentors, facilitating communication between students and administration.

Civic Involvement Project — Primary Schools Feb 2019 — Jun 2019
Volunteer, Sabanci University

- Conducted interactive science activities to encourage confidence and critical thinking in children.

CERTIFICATIONS

- **University of Oxford (2025)** — Artificial Intelligence Concepts: Practical Applications.
- **NVIDIA Deep Learning Institute (2023)** — Fundamentals of Deep Learning.

TECHNICAL SKILLS

High proficiency in Python, PyTorch, TensorFlow, scikit-learn, NumPy, Pandas, SQL.
Experience: time-series modelling (ARIMA, LSTM), data visualisation (Matplotlib, Seaborn), MLOps (Git, Linux). Intermediate: C++, Verilog (FPGA).