Berat Erkan Elcelik, Data Scientist

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Links

LinkedIn: https://www.linkedin.com/in/beraterkanelcelik **GitHub**: https://github.com/beraterkanelcelik

Education

University of Bremen   10/2024 – Present
M.Sc., Artificial Intelligence and Intelligent Systems   *Bremen, Germany*
Ankara University   10/2018 – 08/2023
B.Sc., Computer Engineering, GPA: 3.76/4   *Ankara, Turkey*

Profile

- Master's student in AI with hands-on experience in ML, reinforcement learning, and data science. Looking for an internship or working student role to apply my skills in a practical environment.

Key Skills & Technologies

- **Languages:** Python, C++, C, JavaScript, SQL

- **Frameworks & Libraries:** Vue.js, React.js, NumPy, Pandas, Matplotlib, Seaborn

- **Software Engineering Concepts:** OOP, Algorithms, Data Structures

- **Machine Learning:** Supervised & Unsupervised Learning, Time Series Analysis

- **Reinforcement Learning:** TD3 Algorithm, Multi-Agent & Single-Agent Training, Reward Engineering

- **NLP:** Text Classification, Tokenization

- **Data Science & Analytics:** EDA, Data Preprocessing, Feature Engineering

- **Cloud Platforms:** AWS, Azure

- **Version Control & CI/CD:** Git, Docker, Kubernetes

- **Database Management:** Microsoft SQL Server, MongoDB

Work Experiences

Data Scientist, TAI - Turkish Aerospace Industries, Inc.   08/2023 – 10/2024
CGF Project – Autonomous Aircraft Development   *Ankara, Turkey*
- Mainly worked on **reinforcement learning** and **anomaly detection** tasks.
- Experimented with algorithms and techniques such as **Isolation Forest**, **Local Outlier Factor**, and **autoencoders** on time series anomaly detection task.
- Trained several reinforcement learning agents for various aircraft such as **F16, SU27, and HURJET**.
- * Implemented various RL algorithms such as **DDPG**, and **PPO** from scratch and compared their performances against the currently employed algorithms in the project.
- I also trained **multi-agent** tasks such as dogfight.

Data Scientist (Part-Time), TAI - Turkish Aerospace Industries, Inc.   12/2022 – 08/2023
Working Student   *Ankara, Turkey*
- Applied **machine learning algorithms** for anomaly detection.
- Utilized **reward engineering** to ensure successful task completion.
- Developed a **reinforcement learning algorithm** using **TD3**.

Projects

Movie Recommendation System   10/2024 – 03/2025
- Used **MovieLens** movie dataset.
- Developed a **hybrid recommendation system** using **collaborative filtering (SVD)** and **content-based filtering**.
- Implemented **real-time feedback integration** with **100ms latency**.
- Designed the system with **scalability, security, and GDPR-compliance**.
- For scalability I used **docker** and **kubernetes**.

Certificates

IELTS   09/2024 – 09/2026
Listening: 7.5, Reading: 7.0, Writing: 6.0, Speaking: 7.5, Overall: 7.0 (CEFR Level: C1)   *Ankara, Turkey*