

Mert Can Demir

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Education

Hacettepe University, Computer Engineering Department

Ankara, Turkey

Bachelor of Science in Computer Engineering (GPA 3.37/4.0)

2017 - 2022

- **Relevant Coursework:** Data Structures, Algorithms, Design Patterns, Basic Linear Algebra, Statistics, Data Management, Fundamentals of Machine Learning, Computer Networks, Fundamentals of Computer Vision, Data Intensive Applications, Automata Theory and Formal Languages, Advanced Computer Architectures

Projects

fleam (*JavaScript, Java, Python*)

10/2021 - 05/2022 (8 months)

- The project is devised as a movie/series streaming platform like Netflix and Disney+.
- Contributed to the platform's front end with [React](#).
- Created the recommendation service with [recompy](#), [FastAPI](#) and [Docker Compose](#).
- Created a logo and chose a color palette for the website.
- The source code of the project can be accessed from [here](#).

HitHub (*Python*)

03/2022 - 06/2021 (4 months)

- The project helps to decide whether songs that are already on Spotify are going to be a hit.
- Led the main development of the project and created a series of models to experiment using machine learning algorithms such as [Logistic Regression](#), [SVM](#), [KNN](#), and [Artificial Neural Network](#).
- Proposed a solution which works with an accuracy of 84%.
- The reports and the source code of the project can be accessed [here](#).

Experience

Zeg Teknoloji

Ankara, Turkey

Machine Learning Engineer

02/2023 - Present

- Designing [multithreaded machine learning systems](#) for simultaneous detection inferences from multiple sources.
- Upholding code standards through [flake8](#), [isort](#), [black](#), [ruff](#) and ensuring proper documentation via [Sphinx](#).
- Developing [computer vision](#) models for inferencing, focusing on [YOLO](#) (You Only Look Once)-based models.

Brandefense

Ankara, Turkey

Machine Learning Engineer

07/2021 - 08/2022 (1 year 2 months)

- Led the design of [microservice](#) applications using machine learning for phishing detection.
- Created [multithreaded applications](#) for efficient data gathering required for model training.
- Worked with [Python](#), [FastAPI](#), [Docker](#), and implemented [CI/CD](#) for application deployment.
- Developed machine learning models using [TensorFlow](#) and [PyTorch](#) while conducting research to eliminate biases in outcomes.
- Ensured services were comprehensively documented using [Sphinx](#) and thoroughly tested with a coverage of 95% using [Pytest](#).
- Acted as a code reviewer for the team to ensure deployment-ready quality.

JotForm

Data Scientist, Intern

Ankara, Turkey

08/2020 - 10/2020 (3 months)

- Worked with the Data team to develop a spam detection project, utilizing neural networks with Python and TensorFlow.
- Designed a machine learning model that identified spam forms in six languages with 94% accuracy, using character N-grams and Universal Sentence Encoder.
- Collaborated on the front-end development, employing React for the project presentation.

Hacettepe University Dist. Edu. Appl. and Res. Ctr.

Junior Data Scientist, Part-time

Ankara, Turkey

10/2019 - 05/2020 (8 months)

- Contributed to the implementation of text-to-speech and speech-to-text systems.

Others

Deep Learning Study Group: Completed DeepLearning.ai Study Group #5, interacting with other participants, community members, and guests to improve knowledge and application of deep learning. Access the report [here](#).

Hacettepe University Free Software Society: Co-founder and public relations officer for 2 years.

Python Tutor: Served as an instructor in an 8-week Python 3 course organized by Hacettepe Free Software Society and HUBITO (Hacettepe University Biology Society). Access the lecture recordings (in Turkish) [here](#).

ACM Hacettepe Mobile App: Assisted in the development and maintenance of the ACM Hacettepe Student Chapter's cross-platform mobile app written in Flutter. The app can be found [here](#).

auto-cpufreq: Contributed to a Linux CPU speed and power optimization application by implementing a mechanism to adjust EPP values based on system load. Access the source code [here](#).

drop-cache-if-idle: Authored a script to mitigate RAM usage issue on WSL2 by clearing cache when the system is idle. Access the source code [here](#).

ultralytics: Improved YOLOv8 by introducing a feature *split*, enabling users to test fine-tuned models with their own datasets, a functionality not previously available. Access the source code [here](#).

Languages

Turkish: Native

English: Proficient, *EF SET English Certificate 69/100 (C1 Advanced)*: <https://www.efset.org/cert/jk7dRN>

Technical Skills

Languages: Python, Java, C, JavaScript, Dart, PostgreSQL

Libraries & Frameworks: React, Flutter, FastAPI, Playwright, Pytest, NumPy, Pandas, Matplotlib, Seaborn, TensorFlow, PyTorch

Technologies: Docker, Docker Compose, Git, CI/CD

Foundations: Artificial Intelligence, Data Science, Machine Learning, Deep Learning, NLP, Computer Vision, Recommendation Systems, Phishing Detection, Feature Engineering, Unit Testing, Microservices, Statistical Analysis