# Mert Can Demir



### **Education**

#### **Hacettepe University, Computer Engineering Department**

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

Ankara, Turkey 2017 - 2022 (5 years)

• 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

# **Projects**

fleam (JavaScript, Java, Python)

10/2021 - 05/2022 (8 months)

- The project is devised as a movie/series streaming platform like Netflix, HBO Max, Prime Video, and Disney+. Unlike other platforms, the platform is also designed to support small movie/series producers.
- Contributed to the platform's front end, which has been written with React, and the recommendation service with recompy, FastAPI and Docker Compose. Furthermore, 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 purpose of the project is to help people to decide whether songs that are already on Spotify are going to be a hit.
- Led the main development of project and created a series of models to experiment using machine learning algorithms such as Logistic Regression, SVM, KNN, and Artificial Neural Network. Came up with a solution works with an accuracy of 84%.
- The reports and the source code of the project can be accessed here.

# Experience\_

**Brandefense** 

Ankara, Turkey

Machine Learning Engineer

01/2022 - 08/2022 (8 months)

Machine Learning Engineer, Intern

07/2021 - 12/2021 (6 months)

- Led the development of microservice applications for phishing with machine learning, using technologies like Python, FastAPI, and Docker with CI/CD. Also, TensorFlow and PyTorch were both used for developing machine learning models.
- Did extensive research to make sure the models were producing results which were not biased.
- Ensured the services were well documented using Sphinx and well tested with a coverage of 95% using Pytest.
- Was responsible for reviewing pull requests from the team to ensure the quality is good enough for deployment.

JotForm

Data Scientist, Intern

Ankara, Turkey 08/2020 - 10/2020 (3 months)

- Worked in Data team for a spam detection project that uses neural networks with Python and TensorFlow.
- The model was using character N-grams and Universal Sentence Encoder. In addition, the model detected spam forms in six languages with an accuracy of %94.
- The model was demoed via React.

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

Junior Data Scientist, Part-time

Ankara, Turkey

10/2019 - 05/2020 (8 months)

• Worked on implementing text-to-speech and speech-to-text systems.

# **Others**

**Deep Learning Study Group:** Completed DeepLearning.ai Study Group #5 (held by inzva) successfully. In this study group, the participants get an opportunity to interact with other participants, community members, and guests to improve their knowledge of deep learning, apply it effectively, and build a career in Al. The report of #5 can be seen <a href="here">here</a>.

Hacettepe Free Software Society: I was one of the co-founders of the society and public relations officer for 2 years.

**Python Tutor:** Was an instructor in an 8-week Python 3 course organized by Hacettepe Free Software Society and HUBITO (Hacettepe University Biology Society). The recordings of the lecture (taught in Turkish) can be found <a href="https://example.com/here">here</a>.

**auto-cpufreq:** Contributed to the project, which is a popular application (3.4k stars in Q1 of 2023) to automatize CPU speed and optimize power for Linux based on active monitoring of the laptop's battery state, CPU usage, CPU temperature, and system load, by bringing mechanism to adjust EPP (Intel Speed Shift) values to optimize CPU governor usage based on load. The source code of the application can be accessed <a href="here">here</a>.

**drop-cache-if-idle:** Wrote a simple yet efficient script to temporarily mitigate the <u>issue of RAM usage on WSL2</u>. Due to that issue, WSL2 doesn't return the cache, instead, the amount of cache grows until the WSL2 instance's assigned RAM is full. The script makes sure that the WSL2 instance is idle, then drops the cache. The source code of the script can be accessed <u>here</u>.

# **Languages**

Turkish: Native

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

# Technical Skills\_

Python, Java, C, JavaScript, React, Flutter, SQL, Git, CI/CD, Docker, Docker Compose, Unit Testing, Pytest, FastAPI, Microservices, NumPy, Pandas, Matplotlib, Seaborn, TensorFlow, PyTorch, PySpark, Statistical Analysis, Playwright, Feature Engineering, Artificial Intelligence, Data Science, Machine Learning, Deep Learning, NLP, Computer Vision, Recommendation Systems, Phishing Detection