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

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.
• Created multithreaded applications to gather required data for the models faster.
• Worked with technologies such as Python, FastAPI, and Docker with CI/CD to deploy the applications.
• Used TensorFlow and PyTorch 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 — Ankara, Turkey
Data Scientist, Intern — **08/2020 - 10/2020 (3 months)**

• Worked with the Data team for a spam detection project that uses neural networks with Python and TensorFlow.
• Created a machine learning model that detects spam forms in six languages with an accuracy of 94% using character N-grams and Universal Sentence Encoder.
• Presented the project with the front-end created with React.

Hacettepe University Dist. Edu. Appl. and Res. Ctr. Ankara, Turkey
Junior Data Scientist, Part-time **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 AI. The report of #5 can be seen here.

Hacettepe University 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 (in Turkish) can be found here.

ACM Hacettepe Mobile App: Helped to make and maintain the ACM Hacettepe Student Chapter's cross-platform mobile app, which is written with Flutter, with the other volunteer developers, and help other projects which are pursued by the development team. The app can be found here.

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 here.

drop-cache-if-idle: Wrote a simple yet efficient script to temporarily mitigate the issue of RAM usage on WSL2. 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 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, SQL
Libraries & Frameworks: React, Flutter, FastAPI, Playwright, Pytest, NumPy, Pandas, Matplotlib, Seaborn, TensorFlow, PyTorch, PySpark
Technologies: Docker, Docker Compose, Git, CI/CD, KNIME
Foundations: Artificial Intelligence, Data Science, Machine Learning, Deep Learning, NLP, Computer Vision, Recommendation Systems, Phishing Detection, Feature Engineering, Unit Testing, Microservices, Statistical Analysis