






Efe Sahin

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I am from Turkey, and I focus on GenAI and develop projects based on it. Currently at MEF University advised by Dr. Seniz Demir to research and develop an academic and career assistant for students. I am currently writing scripts to understand streaming EEG data. Looking to meet people in neuroscience and see a connection with Genai. Actively competing in Hackathons in Kaggle.

Technical Skills

|| NLP, Diffusion, Time Series Forecasting || Pytorch, Numpy, Pandas, Matplotlib, Seaborn, Solara, StreamLit || Hugging Face, Colab, Kaggle Competitions, Nvidia HPC, Latex || Git, Linux, C, Docker, FastAPI || Apache Spark, AWS, DataBricks, MATLAB, SQL ||

Work Experience

Bogazici University, Technical Assistant, Remote

08.2023 - 05.2024

In classes of Economy 1 and 2 with Dr. Onur Baser, administered classes of size >200. Wrote customizable scripts for automated exams. Created weekly quizzes in Moodle, tracked student performance, and contributed to setting quiz difficulty levels. Resolved student complaints regarding grading and course platform errors.

Columbia Data Analytics, Junior Programmer Manhattan, NY, 10013

08.2023 - 04.2024

Updated frequently used scripts to work well with recent modules. Delivered counts of drugs, diagnostics, and procedures and organized attrition tables for 6+ different requests per week. Kept track of past and future customer requests weekly and reported recent count improvements to the sales team. Participated in weekly, bi-weekly pipeline, and project discussion meetings with project managers and programmers. Acted as the versatile quick-fix go-to person in technical and non-technical issues in the dynamic startup environment.

Projects

RealTime Audio Translation 05.2024:

Developed multi-threaded script to translate internal audio to English and display. Added an extra layer to speak back the translation. Reduced to 5-second delay.

LLM Performance Testing 04.2024:

Customized and Evaluated 11 different models inference speed and outputs. Performing finetuning LLaVA with custom data on ITU's UHeM.

Hdmm-opt app2scale 03.2024: Developed a wrapper function and optimized XGB Regressor hyperparameters for forecasting e-commerce transaction load data.

Smooth Life Cellular Automaton 03.2024:

Implemented Smooth Life paper and developed interactive UI for tuning simulation parameters. Deployed on Hugging Face with Docker.

RealTime Audio Censorship 04.2023:

Helped the team design a multi-threaded module to "bleep" out banned words in real time and documented a model card for the OpenAI whisper model.

Instrumented Mouthguard Design

04.2023: Researched ways to receive and transmit kinetic data inside a mouthguard. The team was given 2nd place in the K12 awards. Advised by Dr. Reuben Kraft.

Maze solver via auto-encoder 12.2022:

Generated a custom maze dataset and developed an auto-encoder network to solve it. Outputs drew silhouettes of the paths with about 90% accuracy.

32-bit pipelined CPU 05.2022: Implemented CPU design that computed Addition, Subtraction, OR, AND, and XOR commands in Verilog. Optimized the design for recall and speed.

Fs3 In-memory filesystem 12.2021:

Developed an in-memory file system using the double-linked-list data structure. The file system utilized a cache to read, write, and seek, in C.

Education

Penn State University, University Park, PA

2020 - 2023

Bachelor of Computer Science, B.S. Engineering in 3 years with a 3.40 GPA. Dean's List (Spring 2021 & Spring 2023).

International Baccalaureate, Istanbul, Turkey

2016 - 2020

IB Diploma at MEF International and took higher level courses e.g.: HL ITGS and HL Math.

Certificates

Generative AI with Large Language

Models 02.2024: By DeepLearning.AI and AWS course on LLM Apps. Implemented the learnings in Amazon SageMaker studio.

Agile Project Management 01.2024: Google course on customer-focused project management.

Generative AI for Everyone 01.2024:

DeepLearning.AI course to learn about general introduction to the field.

Fundamental Neuroscience for

Neuroimaging 01.2024: Johns Hopkins course about structural and functional brain scanning technologies.

Data Scientist with Python 12.2023: Data Camp course on pandas, sci-kit learn, ML fundamentals.

Harvard University, Cambridge, MA

06.2019 - 08.2019: Took residential summer course. (A)Programming with Python and (B)Computer Science with Java.

Purdue University, West Lafayette, IN

07.2017: GERI residential summer camp and took 4 courses.

Kaplan International School, Manhattan,

NY, 10118 08.2018: TOEFL and Academic English Intensive course for one month with 100% attendance.