Efe Sahin

efe-sahin.com 🔗 efesasa@gmail.com ✉ +1 814-826-8562 📞 linkedin.com/in/efesas 💼 github.com/Efesasa0 🐙

Technical Skills	Deep Learning, LLMs, Diffusion, Time Series Forecasting, VAE **|** Pytorch, Scikit-learn, TensorFlow, Numpy, Pandas, Matplotlib, Seaborn, UI, Solara **|** Hugging Face, Colab, Kaggle, Nvidia HPC, Latex **|** Git, Linux, Shell, Bash, C, Docker **|** Apache Spark, AWS, DataBricks, MATLAB, Excel, SQL

Work Experience

Columbia Data Analytics, Junior Programmer Manhattan, NY, 10013 08.2023 - Present

Updated frequently used programs to work well with others. Delivered counts of drugs, diagnostics, and procedures and helped build attrition tables for 6> different requests per week. Kept track of past and future customer requests.

Joined weekly pipeline and occasional project discussion meetings with ceo, president and project managers.

Acted as the versatile quick-fix go-to person in technical and non-technical issues in the dynamic startup environment.

Team/Personal Projects

LLM Performance Testing 04.2024: Developed testing code for 11 models to evaluate inference speed and output length to a variety of input prompts. Selected 4 models to proceed with further testing (Ongoing).

Hdmr-opt app2scale 03.2024: Developed a wrapper function to optimize XGB hyper parameters for forecasting e-commerce transaction load data.

Smooth Life Cellular Automaton 03.2024: Implemented Smooth Life paper and developed interactive UI for tuning parameters of the simulation. Deployed on Hugging Face with Docker.

RealTime Speech Censorship 04.2023: Helped the team to 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 record and transmit kinetic data inside a mouthguard. The team was given 2nd place in the K12 awards.

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 design 05.2022: Implemented design that computed Addition, Subtraction, OR, AND, and XOR commands in Verilog. Optimized the desing 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 cache to read, write seek, in C language inside an Ubuntu machine.

Education

Penn State University, University Park, PA 2020 - 2023

Completed 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

Completed IB Diploma program when attending MEF International School and took advanced courses e.g:: HL ITGS, HL Math

Certificates

Generative AI with Large Language Models 02.2024: Completed the course from DeepLearning.AI and AWS. Learned about technical work done in developing LLM Apps. Implemented the learnings in Amazon SageMaker studio.

Agile Project Management 01.2024: Completed the course by Google on customer-focused project management in software companies.

Generative AI for Everyone 01.2024: Completed the course from DeepLearning.AI to learn about general introduction to the field.

Fundamental Neuroscience for Neuroimaging 01.2024: Completed course from Johns Hopkins to learn about structural and functional brain scanning technologies.

Data Scientist with Python 12.2023: Completed the track of 90 hours by Data Camp.

Harvard University, Cambridge, MA 06.2019 - 08.2019: Completed residential extension school program and took two undergraduate courses simultaneously:: (A)Programming with Python and (B)Computer Science with Java

Purdue University, West Lafayette, IN 07.2017: Completed GERI residential summer camp and took 4 courses.

Kaplan International School, Manhattan, NY, 10118 08.2018: Completed TOEFL and Academic English Intensive course for one month with 100% attendance.

Learning Achievements

CMPSC 497 Deep Learning for Computer Vision: (A-)
MATH 452 Deep Learning Algorithms and Analysis: (A-)
MATH 486 Theory of Games: (A-)

CMPSC 465 Data Structures and Algorithms: (B+)
EE456 Intro to Neural Nets: (A-)
BME 450W Biomedical Senior Design: (A-)