






Efe Sahin

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I am a **Junior Programmer** at Columbia Data Analytics, in Manhattan, and I have **experience in big data, AWS, and Spark**. Outside work, I **focus on GenAI LLM courses**, open source projects, and **implement GitHub projects**, aiming to **shift my career to software/AI engineering**.

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 **project discussion meetings** with the **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**.

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).

Hdmm-opt app2scale 03.2024: Developed a wrapper function to **optimize XGB hyperparameters** 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 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 language inside an Ubuntu machine.

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 advanced courses e.g.: **HL ITGS, HL Math**.

Certificates

Generative AI with Large Language

Models 02.2024: 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**.