

SAFA SHAIKH

<https://safashaikh.github.io/portfolio> | GitHub: <https://github.com/safashaikh>
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EDUCATION

Columbia University School of Engineering

GPA: 3.8

New York, NY
May 2022

Rutgers University School of Engineering

GPA: 3.9

New Brunswick, NJ
May 2019

WORK EXPERIENCE

Lockheed Martin

Remote
March 2022 - Present

- Built internal operations CLI to automate deployments for ML workspaces, jobs (Ray and k8s), data volumes, data pipelines, etc
- Tested and hosted latest open source ML models, including LLMs such as Mistral and Llama models, on internal server for developer usage e.g. Segment Anything -- enabled bounding box, point and segment everything options through a hosted KServe instance
- Built finetuning as a service pipeline using Flyte and a hosted Lorax server
- Hosted KServe and TGI models on Foundation Model Platform
- Deployed Trino instance on Kubernetes to query over multiple internal databases
- Built generative AI agents with MCP servers and custom tools using OpenAI and Langgraph

Lockheed Martin

Moorestown, NJ
May 2017 - July 2019, July 2019 – March 2022

- Worked on OASIS Simulation Training Product for Aegis Weapons System (AWS) (C++ code)
- Built and maintained prediction algorithm libraries for internal developers
- Led the prediction team as part of greater R&D efforts
- Data preparation and preprocessing

PreCalculus Tutor

New Brunswick, NJ
July 2016 - August 2016

- Taught high school students the fundamentals of function analysis, limits, and function characterization.

RESEARCH EXPERIENCE

NeuroImaging Laboratory at Rutgers University with Dr. Laleh Najafizadeh

New Brunswick, NJ
May 2016 - July 2016

- Researched Brain-Computer Interface (BCI) paradigms - provide a neural pathway for the human brain to interact with a computer program or robot in order to stimulate motor activity; Constructed brain caps compatible with the Functional Near-Infrared Spectroscopy (fNIRS) machine and the electroencephalogram (EEG).

TECHNICAL SKILLS

Environments: PaaS (OpenShift), Linux, macOS, Windows

Languages (On scale of 0-10 where 10 is most proficient)

- | | | | |
|------------------|------------|------------------|------------|
| • Python (10) | • C++ (7) | • JavaScript (3) | • XML (6) |
| • Java (8) | • YAML (6) | • HTML (6) | • JSON (8) |
| • TypeScript (3) | • SQL (8) | • CSS (6) | |

Development

Artificial Intelligence, Machine Learning, DevOps, Agile Development, Big Data, Data Analytics, Object-Oriented Programming

Frameworks/Tools

REST, TensorFlow, SciKit Learn, PyTorch, Keras, Kserve, TGI, HuggingFace, Django, Kafka, GitLab, KubeFlow, Spark, Trino, Git, OpenShift, Docker, AWS, Angular, MongoDB, SQL Server, MySQL, PostgreSQL, VI/Vim

RELEVANT COURSEWORK

- | | | | |
|-------------------------|------------------------------|---|--|
| • Systems Programming | • Probability and Rand. Proc | • Robotics & Comp Vision | • Artificial Intelligence |
| • Data Structures | • Linear Systems and Signals | • Electronic Devices | • Machine Learning |
| • Computer Architecture | • Software Engineering | • Principles of Electrical Engineering I & II | • Capstone Design – Lip |
| • Databases | • Digital Sys Design (FPGAs) | | Reading Android App with Neural Networks |

<https://www.youtube.com/watch?v=ubPe-gHJ0JU>

HONORS

School of Engineering Dean's List

, Engineering Honors Academy, Tau Beta Pi, Society of Women Engineers