

SAFA SHAIKH

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

Columbia University School of Engineering

Master of Science in Computer Science – Machine Learning GPA: 3.8

New York, NY
May 2022

Rutgers University School of Engineering

Bachelor of Science in Electrical and Computer Engineering GPA: 3.9
Bachelor of Arts in Computer Science

New Brunswick, NJ
May 2019

WORK EXPERIENCE

Lockheed Martin

Senior AI & Machine Learning Engineer for AI Factory

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

Software Engineering Intern, Associate Software Engineer, Software Engineer I & II (AI/ML) May 2017 - July 2019, July 2019 – March 2022

Moorestown, NJ

- 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

Private 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

Research Assistant

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)

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|------------------|------------|------------------|------------|
| • 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 GPA: 3.9, Engineering Honors Academy, Tau Beta Pi, Society of Women Engineers