

Shayan Sadigh

Work Status: U.S. Citizen
Email: ssadigh.contact@gmail.com
Github: <https://github.com/shayansadigh> (200+ stars)

Summary

- Founding AI Engineer @Aurascape.ai | Previously @Amazon SageMaker
- Placed top-10 in \$1.5 million Passenger Screening Challenge competition. Designed and trained 200 million parameter MVCNN-Attention neural network for threat recognition on 3D body scans. ([Slides](#))
- Authored "checkered subsampling" deep learning research paper and published PyTorch code. ([arXiv](#))

Work Experience

Aurascape.ai

Founding AI Engineer (Feb. 2024 - Sept. 2025)

- Built and presented R&D demos which helped secure \$12.8 million funding.
- Developed and deployed agentic web traffic analyzer for generating firewall signatures, multimodal content classifiers for content filtering, and agentic web browser for web crawling.
- Leveraged OpenAI, Claude, Gemini, in-house vLLM deployment, and fine-tuning. Built pipelines on FastAPI, Flask, MongoDB, MCP, and deployed Docker containers to Google Cloud, AWS, Azure.

Santa Barbara City College

Adjunct Lecturer (Aug. 2023 - Dec. 2023)

- Taught in-person full semester course on Python, machine learning, and deep learning. Labs included a "small language model" neural network trained with PyTorch on tiny-shakespeare dataset.
- Incorporated MoeBot, my previously built agentic AI, as an AI teaching assistant.
- Quote from department chair: "The student evaluation ratings are the best I've ever seen out of the 12 years of evaluations packets I've signed off on."

Moebot.ai

Technical Founder (2021-2023)

- Built MoeBot, a subscription-based Discord AI agent powered by a swappable LLM backend. Incorporates RAG, Redis-backed agent memory, tool calling, Stripe payments. Deployed to Google Cloud.
- Built various software projects such as MIDI recording tools and VST audio plugins in C, Python.
- Built homelab projects involving analog audio and basic electronics (RME, Ferrofish, TRS/XLR, etc).

Amazon Web Services

Deep Learning Software Engineer II (Mar. 2020 - Dec. 2020)

- Contributed to Amazon SageMaker's internal PyTorch and XGBoost repositories in Python and C++.
- Resolved customer issues and integrated Apache TVM deep learning compiler.

Palo Alto Networks

Senior Software Engineer (Oct. 2019 - Mar. 2020)

Software Engineer (Sep. 2018 - Sep. 2019)

- Awards: Project of the Quarter - Machine Learning Antivirus
- Proposed and implemented new stack-based pattern matching algorithm in C which improved threat coverage in PAN-OS firewall, resulting in higher scores on 3rd-party benchmarks.

- Solved many long-standing customer tickets and feature requests from data science, product managers, and threat research. Quote from VP of Engineering: "One-man army."
- Made major contributions to industry-first machine learning features - integrated inline machine learning models into resource-constrained firewall in C.
- Prepared and presented slides explaining the pattern matching system in the threat detection codebase. The presentation recording is now used to train new hires and cross-functional teams working with threat detection code.
- Participated in data center maintenance and troubleshooting. Installed, brought up, and debugged physical ESXi servers and firewall applicances. Configured VLANs, routing, IP addressing, etc. Printed many labels with the label printers.
- Brought up and helped train two junior engineers.

Patents

- [US-20250363235-A1](#) *Multimodal fingerprinting of digital assets* (Notice of Allowance received)
- [US-20250363180-A1](#) *Visibility applications* (Notice of Allowance received)

Projects/Publications

- [stacked-autoencoder-pytorch](#) (100+ stars) - a popular PyTorch autoencoder influenced by Hinton's 2006 "deep belief nets" paper.
- [Checkered CNN](#) (30+ stars) - a deep learning technique I proposed, checkered subsampling.
- [Passenger Screening Model](#) (20+ stars) - my top-10 solution to a \$1.5 million Kaggle challenge.
- [GauchoMap Chrome Extension](#) - 200+ users when I was maintaining it (2016).

Education

- 5-year accelerated B.S. + M.S. program @ University of California, Santa Barbara
- Master of Computer Science (2017 - 2018)
- Bachelor of Computer Science (2013 - 2017)

Miscellaneous

- 2nd-degree black belt in Taekwondo. Practicing Muay Thai.
- Performing and writing piano music since early childhood.
- Expert DDR player and ranked #1 in online arena shooter.
- Languages: English (native), Farsi (native, but very rusty)