# Shayan Sadigh

**Location**: Santa Clara, CA
**Email**: [ssadigh.contact@gmail.com](mailto:ssadigh.contact@gmail.com)
**Github**: [https://github.com/shayanpersonal](https://github.com/shayanpersonal) (200+ stars)
**Work Status**: U.S. Citizen

## Summary

- Founding AI Engineer @Aurascape.ai | Previously @Amazon SageMaker
- Placed top-10 in $1.5 million Department of Homeland Security 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 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 Rust, Python, C.

**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 helped integrate 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 gave presentation 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.
- Brought up and helped train two junior engineers.

# Patents

- US-20250365320-A1 *Multimodal content interpretation of digital assets*
- US-20250363235-A1 *Multimodal fingerprinting of digital assets*
- US-20250363180-A1 *Visibility applications*

# 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)