

## Armaan Vakharia

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### Summary

Software Engineer experienced in building scalable distributed systems and production-ready machine learning tools. Excited to tackle complex engineering challenges and deliver high-impact software, infrastructure, and AI solutions.

### Experience

#### Software Engineer I

Austin, TX

Vectra AI

June 2025 - Present

- Improve and maintain JetStream, Vectra AI's internal real-time data processing and execution framework built in Python and deployed on Kubernetes, supporting fault-tolerant, scalable processing of millions of data points across six global regions with cross-region replication and synchronization.
- Developing a new Snapshot ETL pipeline within JetStream to consolidate legacy data collection and processing systems, incorporating Delta tables on S3 and SCD Type 2 logic to improve compute efficiency and streamline data access for detection algorithms running every 15 minutes.
- Ensure system reliability as part of the on-call rotation, proactively identifying and mitigating a large-scale data backlog that threatened SLOs. Prevented downtime and preserved detection accuracy for customer-facing systems by triaging and resolving issues using OpenSearch, Grafana/Prometheus, and PagerDuty.

#### Software Engineering Intern

Remote

Alation

Feb 2024 - Dec 2024

- Developed an internal analytics tool, modeling compensation data for 500+ employees against market benchmarks, cutting manual data processing time by 60%.
- Automated data analysis and integration using Pandas, significantly reducing HR workload.
- Integrated the tool with existing company software and developed an intuitive front-end for seamless adoption.

#### iOS Technical Support Advisor

Remote

Apple

Jun 2022 - Jun 2023

- Resolved over 350 technical issues per quarter, while maintaining a 97% customer satisfaction rating.
- Documented customer interactions with detail and accuracy, providing meaningful insights for product engineering teams.

### Projects

#### Clang Taint Analysis

Austin, TX

UT Austin & Ericcson

Aug 2024 - May 2025

*Conducted an in-depth performance analysis of Clang's taint analysis feature to enhance security scanning of widely used open-source libraries such as Redis, OpenSSL, and Postgres.*

#### Are You Social Distancing?

Remote

MIT Beaverworks Summer Institute: Cog\*Works

Jun 2020 - August 2020

*Developed a computer vision model to detect face masks in images and video, achieving 93% accuracy on test data using deep learning techniques.*

### Education

#### B.S., Electrical and Computer Engineering

Austin, TX

University of Texas at Austin

### Technical Skills

**Languages:** Python, C, C++, Java, JavaScript

**Frameworks & Tools:** React, Flask, Docker, Kubernetes, Terraform, Git

**Data & Cloud:** AWS, GCP, Delta Lake, Prometheus, Grafana