# Aditya Mokkapati

+1(925)-895-3685 | linkedin.com/in/aditya-mokkapati-am | amokkapa@gmail.com | github.com/amokkapati

## Education

**University of California, Santa Cruz** September 2025 - June 2026
*Computer Science M.S.* GPA: 4.0/4.0

**University of California, Santa Cruz** September 2022 - June 2025
*Computer Science B.S.* GPA: 3.9/4.0

**Awards:** Dean's Honors List (7x)
**Relevant Coursework**: Intro to Data Structures and Analysis of Algorithms, Computer Architecture, Computer Systems Design, Applied Machine Learning, Artificial Intelligence, Networking Security

## Experience

**Workday, Software Engineer Intern** June 2025 - September 2025

- Engineered synthetic traffic tests in Java, Playwright, and JUnit, simulating **1,000+** daily user sessions to enable real-time coverage and early testing.
- Reduced CI/CD pipeline build time by **80% (30 → 5 min)** by integrating synthetic tests into Jenkins and optimized workflows with QA and Infra teams.
- Deployed Grafana dashboards and PagerDuty alerts across **10+** environments, speeding up root-cause analysis and reducing MTTR by **2 hours** per incident.
- Prototyped LLM-based test-failure summarization using the OpenAI API; surfaced accuracy gaps that informed future automation plans.

**Workday, Software Engineer Intern** June 2024 - September 2024

- Built observability dashboards for the Public Cloud team, ingesting **10,000+** weekly events from **GitHub**, **Jira**, and **PagerDuty** to track DORA and sprint metrics.
- Enabled leadership to cut Jira delivery time by **30%** and boost Terraform deployment frequency by **20%** through metric-driven insights.
- Optimized Docker builds with multi-stage caching, shrinking environment build time **80% (10 → 2 min)** and improving reproducibility across dev and cloud.
- Scaled AWS infrastructure (EC2, RDS, ALB, ASG) via Terraform to handle **3×** expected load with zero downtime during peak testing and dashboard use.

## Projects

**NES-Style Console Emulator**

- Built a C++ 8-bit emulator with separate CPU, memory, GPU, and controller modules; ran custom ROMs at 60 FPS with SDL2 rendering and 95%+ instruction accuracy.
- Shipped cross-platform builds using CMake and FFmpeg, running on macOS, Windows, and Linux with input playback and MP4 debug export.
- Added input recording, replay, and save-state tools, cutting manual test time by 40% and speeding up debugging.

**Drought Severity Predictor**

- Built an experimental ML pipeline to classify drought severity levels (D0–D3) using historical climate data; explored hybrid models with PyTorch and XGBoost on structured tabular features.
- Implemented class rebalancing with SMOTETomek and hyperparameter tuning techniques (dropout, batch norm, learning rate scheduling); reached up to **82%** accuracy in offline testing.
- Created a basic UI for scenario testing and feature importance visualization to inspect model decisions interactively.

## Technical Skills

**Languages:** Python, C, C++, Java, JavaScript
**Developer Tools:** Docker, Jenkins, AWS(EC2, RDS, VPC), Terraform, Grafana, Git, Playwright, PyTorch, TensorFlow, React, Pandas, OpenAI API, JUnit, Unix
**Certifications:** AWS Certified Cloud Practitioner