

Akhil Vemuri

Fremont, CA | vemuri14@purdue.edu | 510-648-9423 | akhilvemuri.com | linkedin.com/in/akhilvemuri1 | github.com/akhilvemuri26

Education

Purdue University

Bachelor of Science in Computer Science

Activities: Boiler Blockchain, Machine Learning @ Purdue

Relevant Coursework: Data Mining & Machine Learning, Data Structures & Algorithms, Systems Programming, Computer Architecture, Problem Solving & OOP, Programming in C, Discrete Math

West Lafayette, IN

May 2028

Experience

Rakuten

AI Engineering Intern

San Mateo, CA

Jul 2026 – Aug 2026

- Delivered **2 end-to-end product prototypes** in **~3 weeks each**, leveraging **AI coding agents** to rapidly iterate across multiple implementation paths from initial spec to working demo.
- Built a consent-aware identity resolution system linking cross-store **Shopify** events for personalized retargeting, deploying supporting APIs in **TypeScript** and **Python**.
- Evaluated an in-house build against **3 vendors** across cost, latency, and integration effort to inform a build-vs-buy decision.
- Coordinated across **iOS**, **backend**, and **QA** teams to ship early-access and exclusive-product flows, presenting demos to executives that helped guide future ventures and corporate strategy.

The Data Mine

Undergraduate Data Science Researcher

West Lafayette, IN

Jan 2026 – May 2026

- Partnered with **Caterpillar Inc** to build a scalable multi-horizon time-series forecasting pipeline over large operational datasets.
- Trained deep learning forecasting models in **Python** and **PyTorch** (Temporal Fusion Transformer-style and Many-Model architectures), cutting error from an 18% MAPE baseline to **11%**.
- Engineered features and preprocessing over **5M+ records**, building reusable transformations for missing values, outliers, and time-based covariates.

Intual AI

Software Engineer

Fremont, CA

May 2025 – Mar 2026

- Designed a distributed data workflow platform with RESTful APIs in **Go**, supporting **5+ core entities** and integrating **PostgreSQL** and Clerk authentication for event-driven pipelines.
- Developed a **React/Next.js** frontend with **30+ modular components** for multi-tenant organizations and real-time canvas workflows, deployed via **Docker** on AWS Fargate and Fly.io.
- Instrumented the platform end-to-end with **PostHog**, covering **75+ custom events** across all major user flows and surfacing the performance and error data used to prioritize feature work.

FIRST Tech Challenge Robotics

Software Lead – Team 11099

Fremont, CA

Aug 2021 – Apr 2024

- Led software and match strategy for a 15-person team to a **top-10 global ranking** (6th worldwide), raising scoring **30%** over prior seasons via optimization-based autonomous path planning and sensor fusion (encoders, deadwheel odometry, AprilTags).

Projects

PropLane

Co-Founder & CTO

May 2026 – Present

- Built a multi-tenant property operations platform in **Next.js/TypeScript** with RLS-backed tenant isolation, unifying leasing, rent collection, maintenance, communications, and accounting across four role-specific portals.
- Developed an **Anthropic SDK** assistant over the same typed, permission-scoped tools as the product UI; added confirmation-gated writes, server-side target revalidation, idempotency, audit logs, and **Langfuse** tracing.
- Implemented resident payments and vendor payouts with **Stripe Connect** across ACH, cards, and digital wallets, backed by a double-entry ledger, bank reconciliation, owner distributions, and 1099 reporting.
- Shipped one **Next.js/TypeScript** codebase across web and native **iOS/Android** with **Capacitor**, integrating push notifications, deep links, camera uploads, and **Twilio** SMS/MMS.

Veridex

Catapult 2026 Hackathon – Finalist

Apr 2026

- Built a decentralized trust and reputation protocol on **World ID/Worldchain** for portable, verifiable identity across humans and AI agents, scored by a deterministic 6-component pipeline aggregating GitHub OAuth, LinkedIn, and on-chain staking signals (**Next.js**, **Express.js**, **Supabase**).
- Implemented ETH-backed social staking and escrowed contracts in **Solidity**, with ethers.js wallet integration and a public credential API tracing AI agents to World ID-verified identities.

Skills & Certifications

Languages: Python, Java, C, C++, JavaScript, TypeScript, SQL, Solidity

AI/ML: PyTorch, TensorFlow, Anthropic SDK (tool calling), LLM APIs (Claude, Gemini), Langfuse, AWS (Bedrock, SageMaker)

Frameworks & Tools: React, Next.js, Node.js, Go, Flask, Docker, Capacitor, Three.js, Vitest, Playwright, Vercel, AWS (EC2, Fargate)

Data & Services: PostgreSQL, Supabase, MongoDB, Firebase, Stripe/Stripe Connect, Twilio, PostHog, OpenTelemetry

Blockchain: World ID, Worldchain, Ethereum, ethers.js

Certifications: PCEP, AWS Certified AI Practitioner, Google Professional ML Engineer