

# Umang Vadhar

[umang.vadhar@gmail.com](mailto:umang.vadhar@gmail.com) | [umangvadhar.com](http://umangvadhar.com) | [linkedin.com/in/umang-vadhar](https://linkedin.com/in/umang-vadhar) | [github.com/uvadhar11](https://github.com/uvadhar11)

## EDUCATION

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California State University, Sacramento – B.S. Computer Science

- Dean's Honor List, GPA: **3.91**
- **Certifications:** HPE - Clients/Servers, APIs, Security (Senior Level)

## SKILLS

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- **Languages:** JavaScript, TypeScript, Java, Python, SQL, C++, PowerShell, Swift
- **Frameworks / DB:** React.js, Next.js, Node.js, Supabase (PostgreSQL), Firebase (No SQL), Flask, React Native, Spring Boot
- **Developer Tools:** Git, Amazon Web Services (AWS), Docker, Kubernetes, CI/CD, Linux
- **Interests:** Basketball (NBA), Soccer, Swimming, Writing

## TECHNICAL EXPERIENCE

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**Software Engineering Intern, SMUD – Sacramento, CA** **May 2025 – Present**

- Saved 75+ hours monthly on manual configuration and cut incident acknowledgement time by 30% by owning the development of an automated on-call notification pipeline using PowerShell and ServiceNow REST APIs, and presented to leadership
- Prevented \$2M+ in substation damage through proactive monitoring and maintained 99.9% upkeep for 1.5 million customers by collaborating with multi-disciplinary teams to configure Ubuntu Linux & a remote-control tablet for a new robotic inspection unit
- Engineering a real-time monitoring dashboard with Prometheus & Grafana for a Docker/Kubernetes environment, tracking business KPIs (billing latency), JVM performance, and pod health to support the containerization of 80+ critical applications
- Reduced the risk of breaches by 30% by implementing API-based zero-trust security for service accounts with BeyondTrust PAM

**Software Engineer & Cofounder, OptionThree LLC – Sacramento, CA** **Mar. 2025 – Present**

- Architected an AI-powered, cross-platform AAC app using Swift, React Native, and a Python/Flask/SQLite3 backend, leveraging AI to adapt to the unique motor and linguistic patterns of neurodivergent users and help them communicate effectively
- Engineered a personalization engine analyzing multi-modal clinician data to generate a dynamic UI, predicting next words and adapting vocabulary to each user's developmental stage, accelerating language acquisition via gestalt language models
- Drove product-market fit by translating insights from 35+ user and speech-language pathologist interviews into the engineering roadmap, securing a 50+ person beta waitlist and winning \$10,000 in funding from 4x pitch competitions/hackathons

## PROJECTS

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**RoboManager – Robotics Inventory & Workflow Manager** **May 2025 – Present**

- Engineered a full-stack inventory management platform to prevent costly component loss for robotics organizations by over 90%, projected to manage over \$500,000 in parts across 1,000+ members and save 200+ hours/month on manual spreadsheet tracking
- Built a Next.js, React, TypeScript frontend with Supabase backend and CI/CD pipelines for scalable, real-time inventory tracking

**Checkpoint – Adobe Express Version Control Add-on | 2<sup>nd</sup> Place Adobe Express Hackathon** **Apr. 2025 – Apr. 2025**

- Engineered a full-stack version control system (informed by user research) to track collaborator edit history and visually compare document versions within Adobe Express, using Node.js and DynamoDB to store history and provide platform improvements
- Presented to 7+ Adobe engineers, praised for solving major pain points, and invited to apply for Adobe grant funding

**IT Assist – AI IT Support Agent | Best Startup, SacHacks** **Mar. 2025 – Mar. 2025**

- Developed an AI support agent designed to save enterprise IT teams over 100 hours monthly by solving common technical issues with the customer, building on company knowledge bases, and integrating into existing ticketing workflows/CRMs
- Used Retell conversational voice agents & TypeScript/Next.js for the frontend, gaining positive feedback from IT CEOs/CIOs

**NASA L'SPACE Mars Mission Concept & Technical Proposal** **Jan. 2025 – Aug. 2025**

- Designed the Command & Data Handling (CDH) system for a Mars rover, earning a top score on the PDR from NASA engineers
- Architected data protocols & software interfaces for the CDH system to successfully integrate engineering & science components
- Led a team of 10 to author a top-scoring proposal (3.75/3.9) on an AI-enhanced spectroscopy system 2-4x faster than current tech

## LEADERSHIP & AWARDS

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**President, Association of Computing Machinery** | Host 1000 person hackathons, improve student CS skills **Jun. 2025 – Present**

**SWE Fellow, Basta x Google** | Solved 50+ data structures & algorithms problems 1:1 with a Google mentor **Jun. 2025 – Present**

**Ideathon Winner, Liner AI** | Designed AI visual framework to link sources, implemented for 10M+ users **Nov. 2025 – Nov. 2025**

**8x Hackathon Winner** | Hornet Hacks, Sac Hacks, UCSB, DataFest, SCU, 3x Venture Competitions **Nov. 2025 – Present**