

# Manoj Konda

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## Education

### San Jose State University

Master of Science in Software Engineering

Aug 2025 - May 2027

San José, USA

**Coursework** Software Systems Engineering, Enterprise Software Platform, Software Security Technologies

### Vellore Institute of Technology

Bachelor of Technology in Information Technology GPA: 3.67/4.00

Sep 2021 - May 2025

Vellore, IN

**Coursework** Data Structures & Algorithms, Object Oriented Programming, Web Technologies, Cyber Security

## Technical Skills

**Languages:** Python, Java, JavaScript/TypeScript, SQL, C++

**Web Dev & DevOps:** React, Node.js, Express.js, NestJS, Tailwind CSS, MongoDB, RESTful APIs, Kubernetes, Git

**Security:** Threat Modeling, Input Validation, Role-Based Access Control

## Work Experience

### CyberMind Works

Oct 2023 - Dec 2023

Full Stack Web Developer Intern (Postgres, NestJS, Next.js, MikroORM, AWS, Kubernetes, Docker)

Chennai, IN

- Designed & implemented scalable online code execution environments for React apps using AWS EC2 and Docker, orchestrated with Kubernetes, to enable isolated execution per user session and reduces load time by 30%.
- Leveraged AWS SDK to deploy dynamic, user-specific React environments and automated data provisioning. Reduced manual setup time by 40%, and improved environment availability by 25% to make platform more reliable.
- Improved API latency by 20% to ensure seamless integration with existing frontend stack and collaborated with the co-founder to design systems in a generic way to align with future product goals.

### Apple Developers Group

Mar 2022 - Jul 2023

Backend Web Developer (HTML, CSS, React, JavaScript, MongoDB, Node.js, Python)

Vellore, IN

- Spearheaded development of a backend system to authenticate users, dynamically retrieve/validate Excel-based questions, streamlining screening of 200+ applicants, cutting down manual workload by 90%.
- Boosted backend performance in recruitment portal, lowering response latency by approximately 25%.
- Mitigated security vulnerabilities in recruitment portal, strengthening authentication and data integrity.

## Projects

**UniRide** — Typescript, Node.js, Express.js, React.js, MongoDB, Socket.io, TailwindCSS, CRON Jobs

[GitHub]

- Architected a MERN-based ride-sharing platform for university students with carpool management, host-specific controls (peer reviews, host transfers, cancellations) designed to scale for 500+ concurrent ride requests.
- Integrated a real-time in-ride group chat system using Socket.io, allowing seamless communication between ride members; enhanced reliability with a CRON-based fallback system to auto-complete rides when users fail to do so manually.
- Performed threat modeling for UniRide, addressing risks in chat, authentication, and ride leader-specific controls, and applied mitigations, minimizing potential attack vectors by approximately 30% and strengthened platform reliability.

**Understanding and Mitigating ARP and IP Spoofing Attacks** — Ettercap, hping3, SET

- Simulated ARP and IP spoofing attacks using Ettercap and hping3, manipulating packet headers and modifying DNS records to redirect approximately 80% of traffic and demonstrate real-time interception and misdirection.
- Configured ingress/egress firewall filtering to block spoofed packets and harden network against ARP/IP spoofing.
- Analyzed packet captures with Wireshark to trace spoofed ARP/IP traffic, verify DNS redirection behavior, and confirm effectiveness of firewall filtering against malicious packets.

**Personal Finance Tracker** — MongoDB, Express.js, React.js, Node.js, Three.js, JWT, Recharts

[GitHub]

- Built a full-stack finance tracking platform with interactive dashboards to monitor expenses, savings goals, & spending patterns in real time, visualizing 100+ sample transactions with 3D landing page (Three.js).
- Developed RESTful APIs to process real-time financial transactions with consistent sub-250ms query responses.
- Applied input validation and JWT-based authentication to secure user financial data by blocking all unauthorized login attempts in controlled test cases.