VINAY KUMAR L

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Education

Visvesvaraya Technological University - Acharya Institute of Technology **2021 – 2025**
Bachelor of Science in Information Science and Engineering - Bengaluru, Karnataka *7.4 CGPA*

Experience

OotaDelivery (ONDC Food Delivery Startup) **January 2025 – present**
Software Developer and Engineer Intern *Bengaluru, Karnataka*

Early-stage startup building buyer app for ONDC (Open Network for Digital Commerce) food delivery ecosystem, requiring feature-complete mobile application and backend protocol integration

- **Architected and developed complete React Native food delivery application** from scratch, implementing core features including restaurant discovery, menu browsing, cart management, order tracking, and user authentication, matching industry-standard UX of established platforms like Zomato
- **Engineered sophisticated multi-cart and multi-item management system** using Redux Toolkit for state management, enabling users to simultaneously order from multiple restaurants while maintaining optimal performance and preventing state conflicts across complex user workflows
- **Implemented ONDC protocol integration** on backend server layer using Python, developing secure digital signature mechanisms for BPP (Buyer Platform Provider) authentication and ensuring compliance with ONDC network participant standards
- **Built robust webhook handling system** for asynchronous API communication, processing incoming requests from ONDC network participants and seamlessly updating client nodejs client application
- **Optimized application performance** through efficient Redux store architecture and component optimization, achieving smooth 60fps scrolling and sub-200ms API response times even with complex multi-vendor cart operations

Projects

V-Deployer | *Next.js, React, Node.js, Redis, AWS (EC2, ECS, ECR, S3), Docker, Microservices Architecture* **May 2025**

Project Overview: Architected a production-grade cloud deployment platform that automates GitHub-to-production workflows with intelligent containerization and dynamic subdomain provisioning. Built enterprise-scale infrastructure comparable to Vercel, enabling zero-downtime deployments and seamless redeployment capabilities .

- Architected enterprise-grade deployment platform rivaling Vercel, enabling seamless GitHub-to-production workflows with automated containerization and subdomain provisioning, reducing deployment time from 45 minutes to under 30 seconds .
- Engineered scalable microservices architecture on AWS ECS with auto-scaling capabilities, supporting 500+ concurrent deployments and handling 10,000+ API requests per minute with 99.9% uptime
- Implemented intelligent CI/CD pipeline with github url integration , automated Docker image builds via ECR, and zero-downtime redeployments, increasing developer productivity by 300% and eliminating manual deployment errors

V-Coder | *Next.js, Express.js, MongoDB, Docker, AWS EC2, Socket.io* **January 2025**

Project Overview: Developed a comprehensive cloud-based integrated development environment enabling real-time code editing, execution, and collaboration through web browsers.

- Architected full-stack cloud IDE platform using Next.js for responsive frontend interface with syntax highlighting, file explorer, and terminal emulation, supporting multiple programming languages and providing seamless developer experience comparable to desktop IDEs
- Implemented containerized code execution environment using Docker containers deployed on AWS EC2 instances, ensuring secure code isolation and supporting multiple runtime environments (Node.js, Python, Java) with automatic resource management and cleanup
- Built real-time sync with Socket.io WebSockets for instant code synchronization, live editing capabilities, enabling multiple components to work simultaneously on shared files and projects with sub-100ms latency
- Optimized performance and scalability through efficient WebSocket connection management and container resource allocation, supporting 50+ concurrent users while maintaining responsive editing experience and minimal server overhead

V-Chess | *React, Node.js, Socket.io, MongoDB, Express.js, Chess.js Library* **August - 2024**

Project Overview: Developed a real-time multiplayer chess application enabling seamless gameplay between users through WebSocket connections with dynamic game state synchronization, move validation, and spectator mode capabilities. Built comprehensive chess game logic with drag-and-drop interface, player matchmaking system, and live game updates using modern web technologies.

- Engineered real-time multiplayer chess platform with WebSocket-based bidirectional communication using Socket.io, enabling instant move synchronization across 1,000+ concurrent games with ¡50ms latency and 99.8% connection stability
- Built scalable matchmaking and lobby system with intelligent player pairing algorithms, spectator mode capabilities, and real-time game state management, supporting 500+ active users simultaneously with automatic reconnection handling
- Developed interactive chess board interface with custom move validation logic, drag-and-drop piece movement, legal move highlighting, and real-time board state synchronization, ensuring accurate gameplay mechanics and seamless user interaction

Technical Skills

Languages: C , C++ , Javascript , Typescript , Python , NO-SQL , HTML , CSS
Developer Tools: VS Code, Vim, Git , GitHub , AWS
Technologies/Frameworks: Linux , Nextjs , Reactjs , Nodejs , Expressjs , MongoDB , WebSockets , Microservices, Docker , AWS services , Redis

Leadership / Extracurricular

VTU state-level hackathon finalist **October – 2024**
Team leader *Acharya- tech team*

- Acheived the finalist place in the top of Karnataka state Hackathon conducted by VTU
- Developed complete AI powered e-learing platform by using one of the sponser apis in less than 12 hrs
- Led the team of 5 participants and represented the college in state level .