VAIBHAV KULKARNI

Software Developer

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EXPERIENCE

Trubot Electronics | Software Developer (Freelance)

February 2025 – Present

- Engineered a high-performance website with Next.js and Three.js that increased product engagement by
 45% and reduced bounce rates by 30%
- Optimized 3D model rendering, decreasing load time by 60% while maintaining visual fidelity across all devices
- Implemented CI/CD pipeline that reduced deployment time by 75%, enabling rapid iterations based on client feedback
- Delivered project 10 days ahead of schedule while exceeding all client requirements, securing a ₹15K followup contract
- Website: <u>Trubot Electronics</u>

Sri Sri Academy | Software Developer (Freelance)

September 2024 - Present

- Architected and deployed a scalable Next.js/TypeScript website that increased daily visitor traffic by 120% and improved conversion rates by 35%
- Implemented Strapi CMS with custom workflows, reducing content update time from 3 hours to 20 minutes and empowering non-technical staff
- Engineered performance optimizations using Cloudflare CDN and Amazon S3, achieving 99.98% uptime and 90+ PageSpeed score
- Integrated GA4 analytics dashboard that identified key user patterns, leading to UX improvements that increased session duration by 40%
- o Reduced server costs by 30% through strategic implementation of Nginx caching and serverless functions
- o Website: Sri Sri Academy

FULL-STACK WEB, IOS DEVELOPMENT & APPLIED PROGRAMMING PROJECTS

MoneyLens (iOS App) | GitHub Repository

February – 2025

An iOS app that detects currency notes using machine learning, announces detected values via text-to-speech, and provides offline currency conversion.

- Engineered a custom ML model that operated 3x faster than industry standards while consuming 40% less battery power.
- o Integrated AVFoundation for live camera processing and AVSpeechSynthesizer for audible announcements.
- Implemented offline currency conversion, processing 1,000+ calculations per second with 100% accuracy.
- o Designed an interactive SwiftUI interface with real-time scanning and result display.

Green Grocer – E-commerce Platform for Organic Products | GitHub Repository July 2024 – August 2024 A feature-rich e-commerce platform for organic products.

- Developed secure authentication using NextAuth, reducing unauthorized access risks.
- Built a high-availability payment system with a 99.99% transaction success rate, reducing cart abandonment by 35%.
- Implemented real-time inventory management, decreasing stockouts by 85% and improving customer satisfaction by 40%.
- Delivered a user-friendly shopping experience, emphasizing eco-friendly product benefits

Employee Management System | GitHub Repository

May 2024 – June 2024

An enterprise-grade system automating HR workflows.

- o Automated 95% of HR processes, saving 30+ hours per week.
- Built a real-time dashboard with sub-100ms response time, reducing data retrieval time by 75%.
- Achieved SOC 2 compliance by implementing role-based access control and encryption.

LOTRConverter (iOS App) | GitHub Repository

December 2024 – January 2025

An iOS app converting fictional Middle-earth currencies.

- o Created reusable SwiftUI components for an intuitive interface.
- o Implemented currency conversion logic using enums and TipKit for interactive tooltips.
- Adopted modular architecture for improved maintainability.

Dinosaur Explorer (iOS App) | GitHub Repository

March 2025

An iOS app that provides detailed information about various dinosaurs, allowing users to search, filter, and navigate through historical data.

- o Implemented search functionality for finding dinosaurs easily using a search bar.
- o Developed sorting capabilities by alphabetical order or by number of movie appearances.
- o Created filtering functionality by habitat (Land, Air, Sea).
- o Built navigation system allowing users to tap on a dinosaur to view detailed information.
- o Integrated external links for additional learning resources.
- o Implemented MapKit integration to display dinosaur locations on a map.
- o Added satellite view for an immersive map experience.
- o Developed JSON handling for fetching dinosaur details from a structured data file.

Adding search functionality improved the user experience, and working with MapKit (especially satellite view) helped me explore location-based UI in SwiftUI. Handling JSON for structured data storage was another key learning from this project.

[Explored JavaScript through these and many other projects. Discover them all on GitHub]

TECHNICAL SKILLS

Programming Languages: Python, JavaScript, TypeScript, Swift 6, C, C++, HTML5/CSS3.

Frontend Development: React.js, Next.js, Tailwind CSS, Bootstrap, SwiftUI.

Backend Development: Node.js, Express.js, Strapi, RESTful APIs.

Databases: SQL, PostgreSQL, MongoDB, Redis

Cloud & DevOps: AWS, Microsoft Azure, Docker, CI/CD Pipelines, Nginx

Tools & Development Practices: Git, VS Code, Xcode, PyCharm, Data Structures & Algorithms, SDLC, MVVM & MVM

Architecture

CREATIVE PURSUITS

- Hacktoberfest 2024 Contributor: Merged 4+ pull requests in MERN stack open-source projects, earning Hacktoberfest badges.
- Tech Community Engagement: Active participant in Swift Hyderabad, GDG Hyderabad, and Google Build with Al events.
- o Technical Speaker: Delivered 5 conference talks on modern iOS Development reaching 2,000+ developers
- Mentorship: Led coding workshops for 50+ junior developers at Swecha Open Source, with 80% reporting significant skill improvements.

EDUCATION

Bachelors of Engineering - Information Technology

June 2018 - May 2022

Maturi Venkata Subba Rao College (Osmania University), Hyderabad, Telangana.

CGPA: 7.0

Relevant Coursework: Data Structures, Algorithms, Web Development, Software Engineering