

## Margam Vishwateja

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 Hyderabad, Telangana, India

## Professional Summary

MERN Stack Developer with proven expertise in building real-time web and desktop applications using React.js, Node.js, Electron, and MySQL. Specialized in end-to-end architecture, hardware-software integration, and secure licensing systems. Experienced with tools like WebSocket, MQTT, Redux Toolkit, D3.js, and Electron for high-performance, scalable, and standards-compliant software solutions. Seeking to contribute to innovative, impactful technology products.

## Technical Skills

- Languages: JavaScript, TypeScript, Python, SQL, Java
- Frontend: React.js, Redux Toolkit, Material-UI, D3.js, Chart.js, HTML, CSS, SVG
- Backend: Node.js, Express.js, REST APIs
- Desktop Applications: Electron, Electron Builder, Electron Packager, Asar
- Databases: MySQL, MongoDB, SQLite
- Tools & Utilities: Webpack, Git, Postman, Dotenv, systeminformation
- Protocols: WebSocket, MQTT (Mosquitto)
- Other: Secure licensing, multithreading, performance tuning, CSV/PDF export, file I/O

## Professional Experience

### MERN Stack Developer

Noki Technologies Pvt Ltd – Hyderabad, India

02/2024 – Present

- Developed full-stack web and desktop apps using MERN stack and Electron.
- Implemented real-time communication using WebSocket and MQTT for telemetry systems.
- Built licensing system using RSA encryption, device-bound keys, and expiry validation.
- Designed modular Redux architecture for multi-plugin dashboards with isolated state.
- Created interactive charts using D3.js and Chart.js with zoom, tooltip, and log scaling.
- Developed UI/UX interfaces aligned with medical device (AERB) standards.
- Managed local CSV export, scheduled telemetry data dumps, and PDF report generation.
- Interfaced with hardware over USB/Serial for nuclear safety and industrial tools.

## Project Highlights

### HFCM Desktop App

- Built a radiation monitoring tool with real-time sensor input and zone-based UI.
- Integrated serial communication and MQTT to support hardware telemetry.
- Handled automatic calibration and live feedback through session monitoring.

### Dynamic Chart Dashboard

- Developed a plugin-based dashboard with isolated Redux states per chart instance.
- Created dynamic D3 visualizations with mode switching and performance tuning.

### Secure Licensing System

- Implemented machine-specific licensing with RSA encryption and expiry checks.
- Ensured tamper-proof file storage in Electron-packaged resources.

### MQTT & Serial Integration

- Built modular MQTT topic handlers for scalable device networks.
- Designed multi-threaded logic for real-time serial communication with error recovery.

### Alarm Control & Messaging App

- Developed an interactive UI for alarm control using dynamic icon updates and counter logic.
- Managed alarm lifecycle and backend state through MQTT/WebSocket events.

## Education

Bachelor of Technology in Computer Science and Engineering

University College of Engineering, Kakatiya University – Kothagudem, Telangana

Aug 2019 – Jun 2023

## Additional Strengths

- End-to-end application ownership from dev to deployment
- UI/UX tuning for scientific and industrial tools
- Custom Webpack and Electron configuration
- Familiarity with medical device (AERB) standards and reporting

## Languages

- Telugu (Native)
- English (Fluent)
- Hindi (Intermediate)