

I am a full-stack software engineer who strongly focuses on crafting intuitive mobile experiences, scaling systems for performance and reliability, and shipping production-ready applications. Passionate about writing clean, maintainable code and contributing to high-impact projects.

Explore my work: <https://karthik-0824.github.io/Portfolio/>

SKILLS SUMMARY

- **Languages:** JavaScript (ES2023), TypeScript, Java, C++, HTML5, CSS3, SQL
- **Frameworks & Libraries:** React, Node.js, Express, Next.js, Spring Boot, Spring MVC, Spring Data JPA, Hibernate
- **Databases:** MongoDB, PostgreSQL, MySQL
- **Tools & Platforms:** Git, GitHub, VS Code, IntelliJ IDEA, Eclipse, Postman, Docker, Heroku, Vercel, Maven, Jenkins, RESTful APIs, bootstrap, figma, Crome dev tools
- **Cloud & Deployment:** AWS (EC2, S3), Vercel, Heroku, Docker, CI/CD Pipelines
- **Soft Skills:** Rapport Building, Attention to Detail, Excellent Communication, Team Collaboration, Problem Solving.

WORK EXPERIENCE

Software Developer Intern | Cisco Systems

May 2024- Sept 2024

Contributed to the development of high-performance, scalable front-end features using React.js for internal and client-facing platforms within Cisco's cloud solutions team.

- Developed modern, responsive web interfaces using React.js, Hooks, Redux, and React Router, ensuring optimal user experience across devices.
- Translated UI designs from Figma into clean, maintainable code using HTML5, CSS3, and JavaScript (ES2023).
- Integrated RESTful APIs using Axios, managing data-driven components and state effectively while maintaining performance and security.
- Followed component-based architecture, building reusable UI components and adhering to DRY principles.
- Collaborated with cross-functional teams including designers, back-end developers, and QA testers in a Scrum/Agile environment.
- Used Git/GitHub for source control, working with branches, pull requests, and peer reviews to maintain code quality.
- Conducted UI testing with Jest and React Testing Library, ensuring reliable performance and reducing regression issues.

Key Accomplishments:

- Helped launch a new feature for Cisco's internal **network monitoring dashboard**, improving visibility for network admins and reducing manual tracking by **40%**.
- Improved rendering performance by **30%** by applying **lazy loading**, memoization, and virtual DOM optimizations.
- Received commendation from mentors for consistently clean, well-documented code and strong collaboration across global teams.

Systems Engineer | Infosys Limited

July 2021- June 2023

- Developed and maintained scalable web applications (Adidas Website) using React (frontend) and Node.js/Express (backend), improving performance and usability for enterprise clients.
- Designed and optimized RESTful APIs, integrated with MongoDB and PostgreSQL databases, reducing data retrieval time by up to 35%.
- Led frontend development for a client-facing dashboard with dynamic UI components, improving user engagement metrics by 20%.

- Collaborated with cross-functional teams in Agile sprints to deliver new features, bug fixes, and system enhancements under tight deadlines.
- Implemented secure authentication systems using JWT and OAuth2, significantly strengthening access control for sensitive user data.
- Used Docker to containerize full-stack applications and assisted in setting up CI/CD pipelines for automated deployment across staging and production environments.

React.js Developer Intern | TCS

May 2022-Sept2022

Completed a hands-on internship focused on front-end web development using React.js, gaining real-world experience in building responsive, component-based UIs.

- Built interactive user interfaces using React.js, including functional components and React Hooks for managing state and side effects.
- Converted basic UI designs and wireframes from Figma into clean, mobile-friendly web pages using HTML, CSS, and JavaScript.
- Worked on a team project to create a task management dashboard, integrating dummy API data and rendering it dynamically.
- Used React Router to implement basic navigation between pages (e.g., Home, Dashboard, Profile).
- Practiced version control using GitHub, collaborating through branches and resolving merge conflicts.
- Participated in weekly code reviews and learned to write cleaner, more readable code following best practices.

Highlights:

- Developed a fully functional **to-do list app** as part of a group project, with add/edit/delete features and data persistence via localStorage.
- Improved understanding of **component lifecycle**, props/state handling, and responsive layout design.
- Gained confidence in debugging React components using **Chrome DevTools** and **React Developer Tools**.

PROJECTS

Real Time Chat App | [Link](#)

Designed and deployed a production-grade chat application supporting real-time communication, secure user management, and persistent data storage.

- Engineered real-time communication using Socket.IO, enabling low-latency messaging with typing indicators and online status, achieving sub-100ms message delivery in test environments.
- Solved message delivery and consistency issues by implementing message queues with socket acknowledgments and fallback retries for unreliable networks.
- Built scalable authentication with JWT and refresh token rotation, protecting private routes and reducing unauthorized access issues by 100% in staging.
- Optimized MongoDB schema design to handle over 10,000+ messages across multiple chat rooms with efficient indexing for fast retrieval and pagination.
- Integrated rate-limiting and sanitization to prevent spam and XSS attacks, decreasing abuse reports in internal testing by over 85%.
- Faced socket disconnection issues under load testing; mitigated using exponential backoff reconnect logic and proper heartbeat intervals.

Green Cart | [Link](#)

Developed a comprehensive grocery shopping platform that allows users to browse, manage carts, and place real-time orders with a clean, mobile-friendly interface.

- Designed an intuitive front-end using React and Tailwind CSS, optimized for mobile responsiveness and accessibility, increasing average session time in testing by 40%.
- Built a scalable back-end with Node.js, Express, and MongoDB, supporting product search, user authentication, cart state management, and order tracking.

- Implemented secure checkout workflows with JWT-based authentication, encrypted payment data (mock or third-party integration), and input validation across all forms.
- Faced cart sync issues across tabs and sessions; resolved using local storage with real-time sync APIs and session-aware updates.
- Optimized database structure to handle over 5,000+ products with dynamic filtering, search indexing, and category-based queries, reducing page load time by ~30%.

Robo Friends | [Link](#)

Built an interactive, searchable robot directory using real-time API integration and dynamic filtering.

- Developed a sleek, responsive UI with React and CSS modules, enabling seamless user experience across devices; achieved 100% Lighthouse score for mobile responsiveness.
- Integrated live user data via REST API (JSON Placeholder/robohash), displaying unique robot cards with dynamic search functionality and on-the-fly rendering.
- Implemented real-time filtering and search debouncing for 1,000+ robot profiles, reducing UI lag and improving search performance by over 60%.
- Faced performance bottlenecks on repeated renders; resolved using React hooks like useMemo and useCallback for efficient state and component updates.

EDUCATION

• Zero To Mastery , Online Education Platform	2025
• M.Sc. Computer Information Systems , Southern University of New Orleans, LA.	2024 - 2025
• B.Sc. Computer Science , CMR Institute of Technology, Hyderabad.	2017 – 2021

CERTIFICATIONS

Full Stack Developer (ZTM) | [Link](#)

- Completed a Full-Stack Development certification course, gaining hands-on experience in building dynamic web applications using technologies like HTML, CSS, JavaScript, React, Node.js, Express, and MongoDB.
- Developed proficiency in front-end and back-end integration, RESTful API design, authentication, and deployment. Strengthened understanding of responsive design, version control (Git), and agile development practices through real-world projects and team collaboration.

Web Developer (Edureka) | [Link](#)

- Completed a foundational Full-Stack Development certification course, where I learned the core concepts of designing a basic website using HTML and CSS long with an introduction to front-end frameworks and server-side basics using Node.js and Express. Gained a clear understanding of how web applications work end-to-end and built simple projects to apply newly acquired skills.