Akshay Santhoshkumar

Full-Stack Software Engineer

(716)-573-9862 | trevorakshay@gmail.com | https://akshaysanthoshkumar.vercel.app/ | linkedin.com/in/trevor-akshay/

Education

State University of New York - University at Buffalo USA

M.S. in Computer Science, GPA: 3.9/4.0 *August 2024 – December 2025*

Work Experience

ZopSmart India

Software Engineering *September 2022 – July 2024*

- Orchestrated best coding practices and agile methodologies through structured code reviews and CI/CD pipelines, boosting code quality scores from 70% to 90%. Post-launch bugs dropped by 50%, establishing a culture of reliability and accelerating feature delivery by 20%.
- Built a high-performance system using Node.js, Express, and MySQL, scaled to 500+ RPS with 99.9% uptime via AWS EC2 horizontal scaling, Redis caching, and connection pooling. This robust infrastructure supported business growth while ensuring consistent user experience and reduced downtime-related costs by $15K annually.
- Identified bottlenecks in API response times and optimized them by 40% through query optimization, NGINX load balancing, and strategic database indexing. This improved user retention by 25% and enabled the platform to handle 2x concurrent users without infrastructure upgrades and set a benchmark for future projects, ensuring scalability and responsiveness.
- Redesigned database schemas by analyzing slow queries, restructured tables, and tested optimizations iteratively which reduced query execution time from 2s to 0.5s. Monthly database costs dropped by $2K and improved overall system efficiency.

Software Engineering Intern *March 2022 – September 2022*

- Developed 15+ RESTful microservices using Koa.js and MongoDB, improving CRUD operation efficiency by 30% with schema denormalization and aggregation pipelines.
- Implemented test-driven development (TDD) with Jest and Mocha, achieving 95% test coverage and reducing production bugs by 50%.
- Built a ReactJS dashboard with Redux for state management and Axios for API integration, reducing customer support tickets by 30%

Leadership Experience

- Designed a 5-week on-boarding curriculum for covering codebases, tools, and team workflows and mentored 4 junior developers through hands-on workshops,pair programming, and regular feedback loops, which reduced team dependency on senior engineers for routine tasks, enabling 20% faster project kickoffs company-wide and reducing average project timelines by 3 weeks.
- Launched Peer-Led Learning Program to to address skill gaps and establish innovation. Designed biweekly "Tech Deep Dive" sessions, built a centralized wiki for documentation, and paired senior-junior developers for mentorship.

Skills

Node.js, JavaScript, Java, Python, TypeScript, MySQL, MongoDB, Go, HTML5, CSS, C++, Angular, Express.js, React.js, Spring Framework, GraphQL, Spring-DI, Hibernate, Git, Amazon Web Services (AWS), Docker.

Projects

- **Hotel Tonight:** A full-stack app with an admin dashboard to manage users and hotels, using Context API and cookies for authentication. It includes a responsive design with pagination, sorting, filtering, and a React calendar. Security was enhanced with JWT tokens and OAuth 2.0, while database performance improved by 30% using a B-Tree structure.

- **E-Commerce:** Developed a fully functional RESTful API CRUD application using Express.js and MongoDB, following a TDD approach with integration testing. Implemented role-based authentication using JWT with refresh tokens and a 4-layer architecture for scalability. Enhanced security by 35% with email verification, 2FA, and pagination support for optimized data handling.