Ram Villa

SENIOR FULL STACK DEVELOPER

Toronto | +16132631403 | ramvilla2203@gmail.com | LinkedIn: ram-villa

Summary

Software Developer with **5+ years** of experience specializing in **React.js** and **AngularJS**, proficient in **Node.js, Flask**, and **AWS**. Successfully led the development of scalable **web** and **mobile** applications, resulting in a 30% improvement in user engagement. Expertise in **state management, cloud** integration, and performance optimization, with a passion for delivering high-impact, user-centric solutions. Known for driving innovation in dynamic, **Agile** environments while ensuring accessibility and cross-platform consistency.

Technical Skills

- Frontend**: React.js, AngularJS, TypeScript, JavaScript**, **Redux**, **HTML5, CSS3**, Bootstrap, SASS, Next.js
- Back-End**: Node.js**, Express.js, RESTful APIs, GraphQL, **Python Flask**
- DevOps & Cloud: **AWS** (Lambda, EC2, S3, IAM, CloudFormation, CloudWatch, SNS), Docker, Jenkins, CI/CD, Kubernetes
- Version Control & Tools: Git, GitHub, GitLab, JIRA, Confluence, Webpack, Babel, Gulp, NPM
- Testing & Monitoring: Jest, Enzyme, Mocha, Chai, Selenium.
- Libraries & Frameworks: Pandas, PyTorch, TensorFlow, SciPy, NumPy, Matplotlib
- Database Management: **PostgreSQL, MySQL**, MongoDB, SQL, NoSQL
- Concepts: Agile, Scrum, Usability Testing, Accessibility (WCAG), SDLC, IAC (Infrastructure as Code), Containers, Cloud Migration, Distributed Systems

Experience

University of Ottawa | Software Engineer **May 2023 - Present**

- ***Project: Developed an e-commerce platform and eHealth web app using React, Angular, TypeScript, Node.js, Python, AWS, MySQL, and MongoDB, integrating machine learning models to enhance performance and user engagement.***
- Optimized front-end performance through **lazy loading**, code splitting, and image optimization, achieving a 30% reduction in load times and enhancing user experience.
- Built and managed **stateful components** using **React Hooks** and **Redux** for efficient state management in complex, data-driven applications, improving code maintainability and scalability.
- Integrated and consumed **RESTful APIs** using **Axios** and **Fetch API**, enabling dynamic content updates and seamless data flow between the front-end and back-end.
- Implemented responsive design principles using **CSS3, Flexbox,** and **Grid Layout** to create adaptable interfaces that perform optimally across devices, from desktops to smartphones.
- Collaborated with **UX/UI** designers to translate wireframes into functional, visually appealing web pages, increasing user engagement by 25% on e-commerce platforms.
- Led the integration of accessibility features across web applications, including ARIA roles and **keyboard navigation**, ensuring compliance with WCAG standards.

- Conducted **cross-browser** testing using **Selenium** and **Browser Stack** to guarantee consistent performance and appearance across all major browsers and devices.
- Set up and maintain CI/CD pipelines using Jenkins and **GitHub Actions**, automating testing, building, and deployment processes, reducing deployment time by 40%.
- Developed and implemented unit and end-to-end tests using **Jest** and **Cypress**, achieving 95% test coverage and ensuring the reliability and stability of front-end components.

Ionixx Technologies | Full-stack Developer **Dec 2021 – Aug 2022**

- ***Project: Developed a crypto trading platform (Bitsian), a community-driven app (Voyaj), and an IoT-based parking solution (SpotASlot) using React.js, Node.js, AWS, and React Native. Emphasized scalability, real-time data processing, and secure authentication mechanisms.***
- Developed and maintained scalable web applications using **React, TypeScript**, and **Node.js,** supporting a high-traffic e-commerce platform.
- Led the migration of legacy systems to a microservices architecture, improving scalability and system resilience by 50%.
- Implemented automated testing workflows using **Mocha, Chai**, and **Jest**, achieving 95% test coverage and reducing production issues by 40%.
- Integrated **AWS** services like **Lambda** and **S3** to streamline data processing and storage, reducing data retrieval times by 25%.
- Designed and implemented **secure authentication** and authorization mechanisms using **JWT** and **OAuth**, protecting user data and enhancing application security.
- Maintained and optimized CI/CD pipelines with Jenkins, reducing deployment times by 40% and ensuring seamless releases.
- Developed reusable components using React.js and **TypeScript**, improving code maintainability and reducing development time by 20%.
- Conducted **A/B testing** and user interface optimizations, which led to a 20% increase in conversion rates.
- Contributed to infrastructure improvements by optimizing build processes with **Webpack**, resulting in faster builds and deployments.
- Worked with design systems to standardize **UI components**, ensuring a consistent user experience across different applications.

Sims Healthcare | Junior Software Developer **July 2018 – Dec 2021**

- ***Project: Built a Med360 healthcare management system with IoT integration for real-time patient monitoring using React Native, React.js, Node.js, and PostgreSQL. Focused on enhancing communication between patients and doctors, ensuring data security and application scalability.***
- Developed and maintained RESTful APIs using **Node.js** and **Express**, enhancing the performance and scalability of **healthcare applications.**
- Built real-time communication modules with **WebSocket**, improving user interaction and data exchange.
- Managed data storage solutions using **MongoDB** and **PostgreSQL**, optimizing query performance and ensuring data integrity.
- Deployed applications using **Kubernetes**, ensuring high availability and fault tolerance in production environments.
- Automated deployment processes with Jenkins, reducing manual intervention by 50% and speeding up release cycles.
- Implemented comprehensive testing strategies using Cypress, achieving 95% test coverage and reducing bugs in production by 30%.

- Engineered client-side validations and **form management** using **JavaScript, HTML5**, and **CSS3**, enhancing user experience and reducing errors.
- Implemented **advanced JavaScript concepts**, such as **asynchronous programming** with **Promises** and **async/await**, to enhance application responsiveness.
- Participated in usability testing and incorporated feedback to refine application features, resulting in higher user satisfaction.

Education

Master of Engineering - University of Ottawa | Canada **Sep 2022- Dec 2023**

Relevant Coursework: Data Science, Full Stack Cloud Development, Frontend development

Graduate Teaching Assistant: Assisted in Coursework, Machine learning operations

GPA: 3.52 / 4

Bachelor of Engineering - B.V.R.I.T | India **Sep 2014- May 2018**

Relevant Coursework: Network Science, Advanced Data Structures and Algorithms, Discrete Mathematics

GPA: 3.5 / 4

Projects and Achievements

Cloud-Based Healthcare Management System

- ***Skills: React.js, Node.js, AWS, Docker, Kubernetes, MongoDB, PostgreSQL***
- Architected and developed a cloud-based system, improving patient data management and query performance by 35%.
- Deployed using AWS and Kubernetes, ensuring high availability and fault tolerance.
- Implemented role-based access control (RBAC), securing patient information with 95% test coverage.

Interactive Data Dashboard for E-commerce Analytics

- ***Skills: React.js, D3.js, Node.js, AWS, Python Flask***
- Developed an interactive dashboard visualizing key e-commerce metrics, enhancing data-driven decision-making. Integrated with Node.js and AWS, enabling real-time data processing and storage.
- Utilized D3.js for dynamic data visualization, improving stakeholder insights and user engagement.

Automated Business Reports Pipeline

- ***Skills: AWS SES, S3, Lambda, Redshift, DynamoDB, Power BI***
- Built an automated pipeline to process business reports from email to AWS Redshift for Power BI analytics
- Reduced manual processing by 80%, enhanced data accuracy, and improved reporting efficiency.

CloudWatch Logs Migration and Monitoring

- ***Skills: AWS CloudWatch, Kinesis, Lambda, MySQL, PostgreSQL***
- Developed a system to migrate and monitor CloudWatch logs for auditing database activities.
- Improved real-time monitoring and compliance with enhanced audibility