

Prasannasai Jayakumar

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EDUCATION

University of Windsor

Master of Engineering, Electrical and Computer Engineering

Windsor, ON

Sep 2023 – Dec 2024

EXPERIENCE

Software Development Engineer - II

Dec 2023 – Jan 2025

Scale AI

Remote

- Developed scalable APIs and backend services with Java and Spring, achieving 99.9% uptime and handling 1M+ daily requests.
- Streamlined database operations for MySQL, PostgreSQL, and MongoDB, improving query efficiency by 20% for 500K+ active users.
- Deployed containerized applications on AWS and Azure using Docker and Kubernetes, reducing deployment time by 50%.
- Enhanced AI responses using LLM prompt engineering, improving accuracy by 20% and reducing query time by 15%.
- Integrated Logback for logging, reducing issue resolution time by 25% and enhancing system reliability and monitoring.
- Optimized website performance by leveraging Sass to modularize styles, reducing page load times by 20%.
- Processed complex JSON requests and responses, optimizing data handling to support millisecond-level latency for high-traffic APIs managing 500K+ daily calls.

Software Engineer

Sep 2020 – Aug 2023

HSBC Banking Ltd.

Bengaluru, IN

- Designed and streamlined enterprise-grade REST APIs using Java and Spring Boot, achieving a 30% improvement in response times through efficient data processing and caching.
- Led the migration of over 1 million records by designing batch processes and REST APIs with Spring Boot, ensuring 100% data accuracy and compatibility with target systems.
- Drove the development lifecycle by writing efficient, testable code, achieving compliance with strict specifications and reducing development errors by 15%.
- Executed unit and regression tests, reducing bugs by 15% and improving product reliability.
- Revamped SQL queries, improving data retrieval performance by 25%.
- Designed and implemented CI/CD pipelines using Git, Artifactory, and Jenkins, automating software releases and cutting deployment cycle times by 30%.
- Orchestrated Agile sprints with globally distributed teams, delivering high-quality features on schedule and enhancing team efficiency.
- Led production and UAT efforts, resolving critical technical issues within SLA-defined timelines of 24 hours, ensuring system readiness.
- Honored as a Star Employee for two consecutive quarters, acknowledging exceptional performance, leadership, and contributions to key projects.

Software Developer

May 2020 – Sep 2020

Visual BI Inc.

Remote

- Implemented AJAX calls with jQuery to create real-time, data-driven web applications, reducing server response times by 30%.
- Implemented object-oriented design patterns, including Singleton and Factory, to enhance application scalability by 40% and reduce development time by 20%.
- Built interactive Power BI dashboards with React.js, reducing report generation time by 25% and improving stakeholder insights.
- Engineered a robust client-side form validation feature, decreasing form submission errors by 30% and improving user experience.
- Authored detailed technical documentation, including workflow diagrams and user manuals, reducing on-boarding time for new users by 25%.

PROJECTS

Automated Package Delivery Drone | *Python, C++, RaspBerry Pi, AWS*

- Engineered a cloud-integrated autonomous drone delivery system using Python and AWS (EC2, S3) for real-time path planning, GPS data processing, and seamless drone-cloud coordination.
- Developed scalable backend systems to efficiently manage large volumes of real-time data, optimizing delivery routes and supporting dynamic multi-sided marketplaces.
- Awarded Best Project of the Year during VIT University open house

Real-Time Chat Application | *Node.js, Express, Mongoose, Socket.io*

- Developed a feature-rich full-stack web application with Node.js, enabling real-time messaging and seamless user interactions.
- Designed an intuitive front-end interface using HTML5, CSS3, and JavaScript to enhance user experience and accessibility.
- Implemented MongoDB as a NoSQL database for efficient message storage and optimized back-end routes to ensure smooth communication flow.

TECHNICAL SKILLS

Languages: Java, Python, SQL, JavaScript, TCL

Frameworks: Spring Boot, Spring Web, Spring Data JPA, React.js, Redux, Node.js

Developer Tools: Git, SVN, Jenkins, Docker, Kubernetes, Helm, Logback

Libraries: Hibernate, JDBC, REST/SOAP API, JUnit, Mockito

Database Management: Oracle, MySQL, PostgreSQL, MongoDB, Cassandra

Cloud & Containerization: AWS, GCP, Azure, Docker, Kubernetes

Web & Mobile Development: HTML5, CSS3, AJAX, JSON, React Native, jQuery/Mobile

Logging & Monitoring: Logback, Kafka

Others: Power BI, XML/XSD validation and transformation, JSON handling