Rahul Podugu

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PROFILE

Software Engineer with over 2 years of experience in developing AI-driven solutions, scalable distributed systems, and efficient software architectures. Proficient in object-oriented design and cloud technologies to create impactful, user-centric applications. Strong foundation in algorithms, data structures, and system design, with a proven passion for innovation and collaboration. Dedicated to continuous learning and the application of emerging technologies to solve complex technical challenges.

EXPERIENCE

Software Developer Research Assistant — UMBC
Aug 2022 – Present — *Baltimore, MD*

- **Advanced UI Engineering**: Optimized and maintained a high-performance UI using Angular, HTML5, and CSS3, reducing initial load times by 40% through server-side rendering (SSR) with Angular Universal.
- **Scalable Backend Architecture & Security**: Architected scalable Node.js microservices with RESTful & GraphQL APIs, leveraging Docker/Kubernetes for container orchestration. Integrated Redis caching, enhancing API response times by 35% while securing 10,000+ users via JWT authentication.

Software Developer — UST
Sept 2021 – Jun 2022 — *Bangalore, India*

- **Payment Module Development**: Designed and led the development of a high-availability payment module using Kafka (event streaming), Java, and Saga orchestration, improving transaction reliability by 45% and ensuring zero data inconsistencies.
- **Microservices Architecture**: Developed and optimized a Spring Boot-based microservices framework, improving API response efficiency by 30% and streamlining REST API integrations for seamless data flow.
- **Accuracy Improvement**: Boosted inventory accuracy by 25% by implementing resilient REST APIs with real-time data validation to minimize inconsistencies.
- **Automated Testing**: Developed automated test suites with Selenium, JUnit, and Mockito (TDD approach), cutting manual testing time by 75% and enabling faster, error-free deployments (20% increased release efficiency).
- **Agile Methodologies**: Championed Agile methodologies (Scrum, Kanban) to cut release cycles by 30%, leading to faster feature rollouts and a 25% boost in team efficiency.

Analyst Intern — Fidelity National Financial
Apr 2021 – Aug 2021 — *Bangalore, India*

- **Data Conversion & Cloud Migration**: Optimized cloud migration pipelines by resolving 200+ Java & SQL bugs, leading to a 50% improvement in data quality and a 25% reduction in errors.
- **Data Extraction**: Engineered an automated Java-based data extraction tool, decreasing processing time by 30% and enhancing data retrieval accuracy.
- **Performance Enhancement**: Enhanced application performance by refactoring Java code and optimizing Hibernate queries, cutting system crashes by 40% and accelerating response times by 25%.
- **CI/CD Implementation**: Implemented CI/CD pipelines with Jenkins, Docker, Kubernetes, and YAML, reducing deployment time by 20% and enabling seamless release automation.

SKILLS

- **Programming Languages**: JavaScript, TypeScript, C, C++, C#, Python, Java, Kotlin
- **Web Development**: Angular, Spring Boot, REST APIs, HTML, CSS, jQuery, SOAP-XML, Node.js, JSON, React
- **Quality Assurance**: Selenium, TestNG, TDD, BDD, JUnit, Cucumber, Postman, Jest
- **Data Management & Analysis**: PostgreSQL, SQL, Oracle, MongoDB, Data Analysis, Kafka
- **Agile Development**: Scrum, Kanban, SDLC, Jira, Git, GitHub
- **Tools & Frameworks**: Docker, Kubernetes, Azure, AWS, Maven, Hibernate, Jenkins, React.js, AJAX

PROJECTS

- **Campus Events Analytics Dashboard**: Architected a campus event dashboard utilizing Node.js, Express, and MongoDB to monitor engagement across 50+ events; streamlined event coordination, improving resource allocation by 15% and increasing student satisfaction scores. **Tech:** Node.js, MongoDB, RabbitMQ, D3.js, AWS.
- **Decentralized Secure File Sharing System**: Pioneered a decentralized file-sharing system utilizing Java, RSA encryption, and Linux-based systems; resulting in zero data breaches over a 12-month period, while exceeding performance benchmarks by 3x. **Tech:** Java, RSA, Linux, Distributed Systems.

EDUCATION

University of Maryland Baltimore County — Baltimore, MD, USA
Master of Science in Computer Science — *Aug 2022 – May 2024*

Amrita Vishwa Vidyapeetham University — Kollam, India
Bachelor of Engineering in Computer Science — *Jul 2017 – Jul 2021*

PUBLICATIONS

- **Remote Medical Assistance for Marine Fishermen through OceanNet**: Presented at the 2021 12th International Conference on Computing Communication and Networking Technologies (ICCCNT), Kharagpur, India, pp. 1–5. doi:10.1109/ICCCNT51525.2021.9579678