

Rishav Kumar

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Experience

Senior Software Engineer, Visa – Austin, TX September 2024 – Present

- Working in the O&I (Operations and Infrastructure) team to ensure high availability, scalability, and optimal performance of systems. Building an alert based system for SWAT calls to be used throughout Visa for emergency remediations to system failures or security risks using Angular, Node, and Microsoft Graph API.

Software Engineer, Arizona State University – Tempe, AZ September 2021 – August 2024

- Developed and maintained full-stack applications using React, Next.js, TypeScript, MikroORM, and SQL Server, improving student management and advising systems, which led to a 25% reduction in manual administrative tasks.
- Optimized system scalability by implementing RESTful APIs and integrating third-party services, improving internal workflow efficiency and reducing database query times by 30% through SQL Server and MikroORM enhancements.
- Deployed and monitored application servers with Prometheus and Grafana, ensuring 99.9% uptime and enhancing performance tracking in an Agile environment following Scrum methodologies.

Software Engineer Intern, Visa – Austin, TX May 2023 – August 2023

- Developed and deployed a Synthetic Monitoring System using Node.js, PHP, Prometheus, and Grafana, reducing pipeline validation time by 30% and improving real-time metrics tracking.
- Optimized gateway performance by designing a metric generator that simulated traffic at defined intervals, significantly enhancing system reliability during testing and deployment.
- Built a dynamic JSON object editor with Java, Redis, and MongoDB, reducing backend support tickets by 50% and enabling non-technical users to easily manage data through a custom UI.

Software Engineer Intern, Visa – Austin, TX May 2022 – August 2022

- Led the development of a high-throughput Java-based solution for streaming data through a Kafka pipeline, enabling seamless data ingestion from Prometheus TSDB to Druid and improving system throughput by 20%.
- Engineered a secure data pipeline with custom authentication for ingesting metrics into Druid, enhancing security and reliability for anomaly detection on server metrics at Visa's capacity of 60,000 transactions per second.
- Optimized the Anomaly Detection Instance, delivering the project within tight time constraints by fine-tuning system performance, reducing operational costs, and ensuring feature completeness under strict deadlines.

Skills

Languages: Java, TypeScript, JavaScript, Python, PHP, C, C++, SQL

Frameworks & Databases: React, Angular, Next.js, Node.js, MikroORM, SQL Server, MySQL, MongoDB, Redis

DevOps & Tools: Prometheus, Grafana, Kafka, Docker, Git, CI/CD, Agile (Scrum)

Web Technologies: RESTful APIs, JSON, HTML, CSS

Awards: Apple WWDC Scholarship Winner (2019 & 2020), TEDx Speaker

Projects

Amazing Algorithms amazingalgorithms.com

- Developed a platform offering 22+ web tools for free and developer resources using PHP, MySQL, JavaScript, and JSON, serving **30k+ monthly users**; optimized database structures and APIs to ensure high availability and scalability for tools like code snippets and a tech dictionary.
- Engineered the **Hosting Checker** tool with IPAPI, improving hosting detail identification speed by 82%, earning recognition as Product of the Day on ProductHunt.

Education

Arizona State University – Master of Science, Computer Science

August 2024

Arizona State University – Bachelor of Science, Computer Science

December 2023