

Sai Nishanth Vaka

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TECHNICAL SKILLS

Programming Languages: Java, Python, C, C++, C#, Bash, HTML, CSS, XML, Prolog, R, Haskell, JavaScript, Rust, TypeScript, Go

Databases: PostgreSQL, Oracle SQL, AWS RDS, MariaDB, MongoDB, DynamoDB, SQLite, Hadoop

Frameworks: Spring boot, .NET MVC, Android, Selenium, node.js, React, PyQt, Tensorflow

Tools and Technologies: Git, AWS (EC2, Lambda, ELB, API Gateway, S3, RDS, DynamoDB, ElastiCache, IAM, Secrets Manager, Cognito, CloudFormation, CloudWatch, CloudTrail, AWS Config, SNS, SQS, Step Functions, Athena, SageMaker, CodePipeline, CodeBuild, CodeDeploy, ECS), Apache Kafka, RESTful APIs, HTTP, Kubernetes, Gradle, Maven, Linux, Docker, CI/CD, JUnit, Mockito, Redis, Microservices, Agile Scrum, Protege, PySpark, Hive

EXPERIENCE

Intuit (AK Technologies)

Aug 2024 - Current

Senior Software Engineer

San Diego, CA

- Reduced operational overhead averaging **2 hours per day** by parallelising task execution and implementing multi-stage testing, enhancing collaboration and efficiency across cross-functional team dependencies.
- Improved application performance by consolidating multiple downstream calls into a single optimized service call, **reducing latency by 200ms per transaction**.
- Designed and implemented new APIs to externalize static data and dismantle legacy components owned by other teams, enabling the creation of a distributed system fully owned by our team; this redefined team boundaries, reduced yearly rollover churn, and **cut repetitive development efforts by 20%**.
- Currently working on designing and implementing a decentralized architecture for the final step of TurboTax, enhancing scalability and reliability while handling **100K TPS during peak periods**.

Amazon Web Services

May 2023 - Jun 2024

Software Development Engineer

Austin, TX

- Designed and developed the frontend component of private offer creation, enhancing user experience and streamlining the process.
- Discovered user access control shortcomings and orchestrated a comprehensive overhaul of permissions across services. This initiative culminated in a notable **23% reduction in 403 errors**. Furthermore, orchestrated smooth user transitions, enhancing the overall user journey.
- Automated the analysis of recurring auto cut tickets, resulting in a **saving of 15 developer hours weekly** and reducing the operations/on-call ticket surge by 9%.
- Designed and developed an Offer Creation API integrated with a Slack bot, enabling rapid updates to private offer contracts for the AWS business development team. This application **accelerated offer delivery by 4 hours** and increased peak-time revenue by an average of **\$800K monthly**.

Helium Consulting

May 2019 - Feb 2022

Member Technical Staff

Pune, MH

- Implemented an offset auto-advancement feature in the **data plane** (deployed in Kubernetes cluster), by dynamically adjusting Kafka partition offsets to prioritize live data over stale during high latency in downstream services.
- Designed, and deployed IIoT bus, interfacing with diverse interfaces via various network protocols, handling data at a rate exceeding 100GB per minute. Implemented configurable models for data cleansing and extrapolation, facilitating seamless analysis.
- Designed and developed a cloud-based application capable of generating custom web UI's and managing various forms of data, including version control. Customers utilize this application to effortlessly create web forms, eliminating the need for manual intervention by software developers and reducing the time required from months to minutes.
- Initiated and established the software development life cycle in an environment previously without such processes, covering requirement gathering, design, testing, Agile Scrum methodologies, documentation, and beyond.

EDUCATION

Arizona State University | Tempe, AZ

Master of Science in **Computer Software Engineering**

Aug 2021 - May 2023

Indian Institute of Technology | Palakkad, India

Bachelor of Technology in **Computer Science and Engineering**

Aug 2015 - May 2019

PUBLICATIONS

- Published a research paper in CSR 2020 "An Improvement to Chvátal and Thomassen's **Upper Bound for Oriented Diameter**": 15th International [Computer Science Symposium](#). The same results are further published in a Journal called [Discrete Applied Mathematics](#).