**Sai Prasad Paladugu**

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**Professional summary**

Software Engineer with over 4.5 years of experience specializing in cloud-native architecture and full-stack development. Delivered significant performance and cost optimizations, including a 100x reduction in DynamoDB costs at Amazon. Expert in designing scalable microservices and data-intensive workflows using AWS, Java (Spring Boot), and modern DevOps practices to solve complex business challenges.

**Technical Proficiencies:**

* **Languages:** Java (8/11/17), C, C++, C#, Python, SQL, Bash, Kotlin
* **Frontend / Web Technologies:** React.js, Angular, AngularJS, TypeScript, JavaScript, HTML5, CSS3, Bootstrap
* **Backend / Frameworks:** Spring Boot, Spring MVC, Hibernate, Apache Camel, Apache Kafka, Django, Express.js, .NET
* **Cloud & Infrastructure:** **AWS** (EC2, Lambda, S3, API Gateway, Step Functions, DynamoDB, RDS, SQS, SNS, CloudFormation, CloudWatch, CDK, EMR, Redshift, Athena, Kinesis, EKS, ECS, Neptune, App Config), Microsoft Azure, PCF
* **Databases / Data Stores:** PostgreSQL, MySQL, Oracle, SQL Server, MongoDB, Redis, DynamoDB, Neptune, Snowflake
* **DevOps & CI/CD:** GitLab CI/CD, Jenkins, Docker, Kubernetes, Terraform, Ansible, Bamboo, Git, Bitbucket, Maven, ANT
* **Messaging / Streaming Systems:** Kafka, RabbitMQ, ActiveMQ, Amazon SQS
* **API & Integration:** REST, GraphQL, SOAP, OpenAPI, Swagger
* **Testing / Automation Tools:** JUnit, Appium, Postman, Cucumber, Selenium, Cypress
* **Data & Visualization:** Tableau, Pandas, R

**Employment history**

**Amazon - Software Engineer** October 2022 - Present

Dallas, TX

* Reduced DynamoDB read capacity costs by **100x** and improved query latency by **65%** by redesigning data access patterns for global customer data.
* Engineered high-throughput financial workflows using **Java + Spring Boot**, exposing **GraphQL APIs** for optimized client-side data fetching.
* Designed and implemented a **RESTful API** endpoint using AWS **API Gateway** and **Lambda** to support **AWS Step Functions** based workflows, enabling single-line infrastructure upgrades with 100% test coverage.
* Introduced **Redis-based caching layer via ElastiCache**, resulting in a **70% boost in response times** for immigration systems.
* Built a **microservice for network device modeling** using **Neptune (graph DB)**, improving query speed by **95%** and enabling infinite scalability with AWS Lambda.
* Spearheaded a critical, cross-team data integrity initiative by improving API schemas, purging malformed datasets, and migrating over 5 years of historical data to cold storage.
* Automated infrastructure provisioning with **AWS CDK** and implemented comprehensive **CloudWatch** monitoring and alerting, reducing time-to-detection for production issues by **80%**.
* Involved in designing and deploying multi-tier immigration and relocation services using all the AWS services like (EC2, Route53, S3, RDS, Dynamo DB, SNS, SQS, DLQ, IAM) focusing on high-availability, fault tolerance, and auto-scaling in AWS Cloud Formation.
* Built a real-time case tracking dashboard using **Angular**, integrating GraphQL and REST APIs, enabling internal teams to visualize over **50k+ active Immigration & relocation cases** globally.
* Designed, deployed, and maintained end-to-end Spark-based ETL pipelines on **AWS EMR** and Airflow to process **terabyte-scale** datasets for weekly refreshes.
* Mentored multiple new team members and interns, accelerating their onboarding and helping them deliver successful projects ahead of schedule.

**Prakya** - **Software Engineer**  May 2022 - Aug 2022

Remote

* Built and maintained Jenkins CI/CD pipelines for automating build, test, and deployment cycles.
* Boosted developer productivity by 40% by building Bash/Python utilities for automating Docker builds, GitLab CI/CD workflows, and cleanup tasks.
* Created and maintained Jenkins pipelines for automated testing and deployment, accelerating release cycles by **3x**.
* Wrote **BDD tests using Cucumber** and maintained **JUnit** unit test suites, achieving **85%+ code coverage**.
* Participated in Agile ceremonies and consistently completed stories ahead of schedule.

**Legato Health Technologies** - **Software Engineer** Mar 2020 - Aug 2021

Bangalore, India

* Developed scalable backend services using **Spring Boot and Java 11**, handling sensitive health data for **100K+ users**.
* Migrated legacy systems from **.NET/WPF** to modern REST APIs and microservices, improving system maintainability by **60%**.
* Built robust ETL pipelines and dashboards using **Python (Pandas)** and **Tableau**, delivering leadership insights across **850+ employees**.
* Deployed applications on **Kubernetes and PCF**, implementing blue-green deployments and autoscaling policies.
* Automated weekly reports and internal dashboards using **R and Python**, cutting manual effort by **90%**.
* Collaborated on full stack features using **AngularJS, ReactJS, Node.js, JSON, HTML5, CSS3**, and ensured accessibility using **JAWS and NVDA**.
* Designed and executed **automated test suites** for regression and functional testing, enhancing release reliability and coverage.

**Education & Skills**

Master of Science in Computer Science, Dec 2022 University of North Texas