PRAKASH REDDY PASHAM

📞 +1(716) 390-8830   ✉ prakash.reddy9766@gmail.com   in prakash-reddy-pasham   ⌂ prakashreddy975   👤 portfolio

SUMMARY

Results-driven Software Engineer with 2 years of experience designing and scaling high-performance backend systems for **14M+ users**. Expert in **Java, Spring Boot, and Kafka**, specializing in event-driven microservices architecture and system optimization that has cut infrastructure costs by **30%**. Passionate about leveraging AI/ML to solve complex problems and deliver impactful software solutions.

EXPERIENCE

PAYTM (One97 Communications Ltd), Software Engineer   Noida, India │ Jun 2022 – Jun 2024

- **Improved system performance and efficiency** by integrating **Aerospike caching**, optimizing **Kafka consumers**, and enabling **asynchronous processing** — reducing infrastructure costs by **30%** and increasing throughput.
- **Developed and maintained Spring Boot microservices** for billing and consent management, achieving **97.6% API success rate** and enabling **automated bill-fetch** workflows for **14M+ users** via **event-driven architecture**.
- **Engineered secure, scalable systems** by implementing **AES-256 encryption** across credit card and mobile (postpaid/prepaid) data pipelines (**MySQL, Cassandra(NoSQL), Kafka**), securing data for **10M+ users** in alignment with **regulatory standards**.
- **Built reusable infrastructure components**, including a centralized **encrypted logging module** and **fault-tolerant scripts** that encrypted and migrated **15M+ legacy records** with **zero downtime**.
- **Established full-stack monitoring and alerting** using **Prometheus** and **Grafana**, deploying real-time dashboards and automated alerts that reduced **incident response time by 40%** and enhanced **production stability**.
- **Collaborated with cross-functional teams** to troubleshoot production issues, enhance feature rollouts, and streamline **CI/CD pipelines** using tools like **Git**, **JIRA**, and internal deployment frameworks, resulting in faster delivery and reduced deployment errors.

SKILLS

Languages	Python,C, C++, C#, Java, JavaScript, SQL, R,ReactJS
Backend	Spring Boot, REST APIs, Microservices, Node.js
Databases	MySQL, PostgreSQL, MongoDB, Cassandra
AI & Machine Learning	TensorFlow, PyTorch, Keras, Scikit-learn, Pandas
Cloud & DevOps	AWS (EC2, S3), Docker, Apache Kafka, Git, JIRA, CI/CD
Tools and Platforms	Git, Linux, Oracle APEX, JIRA, Agile Methodologies,Tableau

TECHNICAL PROJECTS

E-Commerce Fraud Detection System   Jan 2025 – Present

- To solve the challenge of processing high-volume orders while preventing real-time fraud, I architected a full-stack, event-driven microservices application.Using **Spring Boot**, **Apache Kafka**,and a polyglot persistence strategy with **PostgreSQL** and **Cassandra**,I developed a decoupled system for ordering, payment, and inventory.This solution successfully processes orders asynchronously while a dedicated fraud service analyzes transactions, automatically flags suspicious activity, and places orders on hold, enhancing both system resilience and security.

Swimming Pool Management System (DBMS)   Aug 2024 – Dec 2024

- To solve the inefficiency of a paper-based system causing scheduling conflicts, I architected a full-stack management application. Using **Oracle APEX** and **SQL**, I designed a comprehensive relational database and developed a user-friendly web interface. This solution successfully centralized all operational data, eliminated booking errors, and streamlined the facility's entire workflow.

Age of Information in Networks   Jul 2021 – Jul 2022

- To address data staleness in real-time IoT systems, I investigated the "Age of Information" (AoI) metric to ensure data freshness. I developed a **Python-based simulation** to model various network access methods, identifying optimal transmission strategies. This research led to a theoretical **15% reduction in data latency** and a **10% improvement in network efficiency**.

Satellite Image Classification Using Deep Learning   May 2021 – Aug 2021

- To address the slow and error-prone manual process of land use analysis, I engineered a deep learning pipeline to automate classification of satellite imagery. I designed and trained a Unet++ semantic segmentation model using **TensorFlow** and **Keras**, implementing robust image preprocessing and data augmentation techniques. The resulting system delivered a **92% classification accuracy**, providing a scalable tool for automated environmental monitoring.

CERTIFICATIONS

- **Completed JPMorgan Chase Software Engineering** Virtual Experience Program - gained hands-on exposure to interface debugging, feature implementation, and financial data visualization.Certificate

EDUCATION

University at Buffalo, The State University of New York   Dec 2025
Master of Professional Studies in Data Science and Applications │ GPA: 3.96/4.0   Buffalo, NY
Relevant Courses: Machine Learning, Database Management System, Data Mining

Indian Institute of Technology Tirupati (IITTP)   Jul 2022
Bachelor of Technology in Electrical Engineering   Tirupati, India
Relevant Courses: Data Structures, Machine Learning for Image Processing, AI, Deep Learning, Signals and Systems

POSITIONS OF RESPONSIBILITY

Internship and Placement Representative, IIT Tirupati   Jul 2020 – Jul 2022

- **Coordinated and streamlined campus placement and internship drives** by liaising with companies and academic departments, resulting in a **20% increase in placement success** and a **30% rise in student engagement and participation**.