

Rohith Pavuluru

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EXECUTIVE PROFILE

Software Engineer - Platform with experience in **distributed systems**, **computer vision**, and **real-time data processing**. Specializing in **Python**, **Kubernetes**, **AWS**, and **microservices architecture**, I build scalable backend systems that process **1M+ data points** and support **production ML workflows**. Proven in delivering **video analytics solutions** and **containerized services** for safety-critical applications.

EDUCATION

Masters in Computer Science | Indiana University Bloomington | CGPA: 3.97 | May 2025

Relevant Coursework: Applied Algorithms, Machine Learning, Big Data Applications, Computer Networks, Software Engineering

Bachelor of Engineering | BMS Institute of Technology and Management | CGPA: 9.11 | May 2023

TECHNICAL SKILLS

Programming Languages: Python, Java, JavaScript, C++, SQL, Go

Distributed Systems: Apache Kafka, AWS Kinesis, Flink, Real-time Data Processing, Event-Driven Architecture

Cloud & Infrastructure: AWS (Lambda, S3, IoT Core, SageMaker), Kubernetes, Docker, Terraform, Infrastructure as Code

Backend & APIs: REST APIs, Microservices Architecture, Containerized Services, Django, Node.js

Computer Vision & ML: PyTorch, Scikit-learn, OpenCV, ML Pipeline Development, Video Analytics, Data Ingestion

DevOps & Monitoring: CI/CD, Grafana, System Observability, Production Deployments, Code Quality

EXPERIENCE

Platform Engineer

Jan 2025 – Jul 2025

Indiana University Bloomington

Bloomington, IN

- Built **real-time video analytics system** using **AWS cloud services** and **Python**, processing 1,000+ user interactions with **low-latency event detection** and achieving **3x improvement in data collection efficiency**.
- Developed **scalable backend APIs** and **microservices architecture** with **containerized services**, implementing **drag-and-drop functionality** and real-time processing for production environments.
- Designed **distributed systems** for video ingestion and processing, ensuring high availability and resilience across both edge devices and cloud infrastructure.

Platform DevOps Engineer

Feb 2023 – Jul 2023

Nokia Solutions and Networks

Bengaluru, India

- Architected **large-scale distributed systems** using **Kafka**, **Grafana**, and **Kubernetes**, improving system reliability by **22%** and implementing comprehensive **monitoring and observability**.
- Built **production-grade CI/CD pipelines** with **Kubernetes** and **Docker**, accelerating deployments by **25%** and achieving **50% reduction in container image sizes** through optimization.
- Implemented **Infrastructure as Code** practices and **automated testing frameworks**, maintaining **92.4% code coverage** and ensuring robust containerized workload management.

Computer Vision Engineer

Jul 2022 – Oct 2022

Nano Robotics Embed Technologies

Bengaluru, India

- Developed **computer vision and ML pipelines** using **AWS (IoT Core, Lambda, Kinesis, SageMaker)**, processing **1M+ real-time data points** and improving model accuracy by **12%** in production.
- Built **real-time alert system** with **video analytics** and **API integrations**, implementing **low-latency event detection** for 10km radius coverage enhancing safety monitoring.

Backend Systems Engineer

Feb 2021 – Jun 2022

Pramahasoft Solutions Pvt Ltd

Hyderabad, India

- Designed **scalable data ingestion systems** using **Python** and **REST APIs**, processing 200,000+ transactions hourly with **98.92% accuracy** through **distributed architecture**.
- Implemented **real-time data streaming** with **microservices** and **automated workflows**, building resilient backend services that eliminated manual interventions and enhanced system performance.

PROJECTS

Real-time Video Analytics Platform | *Firebase, AWS, Computer Vision, ML Pipelines*

- Engineered **full-stack platform** with **Firebase**, **AWS**, and **computer vision capabilities**, implementing **real-time video processing** and **ML pipeline integration** for educational institutions.
- Built **distributed system architecture** with **containerized services**, **access control systems**, and **production-grade APIs**, collaborating in cross-functional team environment.

ML-Powered Data Processing System | *Django, Python, Distributed Processing*

- Developed **production ML pipeline** using **Python**, **Django**, and **distributed processing**, achieving **95% accuracy** in data analysis and reducing processing time by **40%** across multiple systems.
- Deployed **scalable backend infrastructure** serving **1,000+ concurrent users** with **4.8/5 system reliability score**, demonstrating expertise in **production system design** and **performance optimization**.