Praneeth Villuri

Hyderabad, India | pranee16502@gmail.com | 9652840444 | Github | Linkedin

Profile Summary

AI/ML-focused Software Engineer with 2.5+ years of experience in production distributed systems. Strong in applied ML (NLP, anomaly detection fundamentals), system reliability, root-cause analysis, and cloud-based services, with hands-on use of Grafana and Splunk for customer incident resolution.

Experience

Developer Associate July 2023 – Present
SAP Analytics Cloud, SAP Labs India *Bengaluru, India*

- Designed and integrated sentiment-analysis–driven features into internal analytics workflows, handling data preprocessing, labeling considerations, output validation, and downstream system integration for reliable ML-driven insights.
- Led deep-dive investigations into data lineage and metadata persistence issues, resolving **SQL database inconsistencies** through **Grafana** and **Splunk**impacting **30+** global customers; recognized for clear, evidence-based communication and timely resolution.
- Built automated regression and validation pipelines across 20+ analytics workflows, improving reliability of data-driven features and reducing manual validation effort by **80%** in production systems.
- Validated cloud-based analytics workflows across **AWS, IBP, and HANA Cloud** using API-driven testing to ensure consistency and correctness across distributed systems.

Projects

Guess IT! – Online Multiplayer Trivia Game | *Python, REST, React, PostgreSQL, NLP* May 2022 – 2023

- Built the data pipeline using web scraping and NLP techniques for keyword extraction and similarity-based mapping between content and game prompts.
- Published curated datasets on Kaggle with **200+** cumulative downloads, including data cleaning, labeling, and documentation to support reproducible analysis and experimentation.

Blind Assistance System | *Python, Computer Vision, Deep Learning, Object Detection, Text-to-Speech* 2023

- Designed and implemented a real-time assistive system using deep learning–based object detection to identify surrounding objects from live camera input.Integrated text-to-speech for accessible feedback
- Improved object detection performance from 0.65 to 0.78 mAP by evaluating inference behavior across diverse public datasets (COCO, Unsplash, Pexels), iterating on model selection, and validating robustness under real-world conditions.

Technical Skills

Programming Languages: Python, Java, SQL
Machine Learning: Supervised and unsupervised learning, anomaly detection, NLP, computer vision, model evaluation, Scikit-learn, TensorFlow
Backend & Systems: RESTful APIs, distributed systems, microservices, system reliability, root-cause analysis
Databases: PostgreSQL, SQL optimization
Monitoring & Observability: Grafana, Splunk
Cloud & DevOps: AWS, GCP, Docker, CI/CD, Linux
Development Practices: Automated testing, Agile/Scrum, production support

Education

Amrita Vishwa Vidyapeetham Kerala, India
Bachelor of Technology in Computer Science *2019 – 2023*

- **CGPA:** 8.87 / 10
- **Relevant Coursework:** Machine Learning, Natural Language Processing, Digital Image Processing, Probability & Statistics, Mining Massive Datasets

Publications

Surveying Keyword Extractors: Classification, Applications, and Empirical Analysis
(PICET), 2024
DOI: 10.1109/PICET60765.2024.10716076