Achyut Sridhar Kulkarni

+15853036007 | ak6416@rit.edu | linkedin.com/in/achyutsk

Experience

Data Scientist, Jorts app
August 2025 - Present *Charlotte, NC*

- Led backend development using Python and FastAPI, streamlining DB integrations to support scalability.
- Engineered data infrastructure with MongoDB for messaging, and GCP for media management.
- Enhanced MongoDB performance to handle high-volume data, reducing latency and increasing reliability.
- Designed data models using Neo4j for mapping user interactions, improving event discovery by 28%.
- Integrated predictive models into production workflows, reducing churn by 15% in pilot markets.

Data Scientist, Megh Computing
August 2020 - March 2023 *Bengaluru, India*

- Architected pipeline acceleration with TensorRT and OpenVINO, cutting inference latency 40% for analytics.
- Scaled throughput by 60% with FPGA/GPU parallelism, sustaining performance for high-volume videos.
- Spearheaded AWS/GCP edge-cloud deployments, lifting efficiency 30% in bandwidth-limited environments.
- Advanced Megh's VAS by refining ML models, boosting accuracy 25% for real-time threat identification.
- Instituted CI/CD benchmarking and drift checks, halving debugging and hardening production reliability.

Education

Rochester Institute of Technology - Master of Science in Data Science *Cumulative GPA: 3.9*
August 2023 - May 2025 *Rochester, NY*

- Relevant courses: Foundations of Data Science & Analytics, Applied Statistics, Software Construction, Database Design & Implementation, Software Engineering for Data Science, Applied Data Science I & II.

Skills

- **Programming:** Python (pandas, scikit-learn, PyTorch, TensorFlow), R, SQL, PySpark
- **Machine Learning & GenAI:** Predictive Modeling, Classification, Regression, Time Series Forecasting, Model Explainability (SHAP, LIME), LLM Integration (Hugging Face, OpenAI, LangChain)
- **Statistical Analysis:** Hypothesis Testing, A/B Testing, ANOVA, Causal Inference, Experimental Design
- **Data Engineering & Databases:** Apache Spark, Airflow, Databricks, Snowflake, PostgreSQL, MongoDB
- **Cloud & MLOps:** AWS (SageMaker, EC2, S3), GCP (BigQuery, Vertex AI), Docker, MLflow, CI/CD
- **Data Visualization & Reporting:** Power BI, Tableau, Plotly, ArcGIS StoryMaps, Data Storytelling

Projects

Autonomous Vehicle Safety (Explainable AI) | *Python, OpenCV, TensorFlow, CRAFT, TCAV* - Link
Collaborators: Toyota Research Institute, University of Florida, University of California Irvine

- Developed XAI pipelines to interpret object detection in AVs, analyzing over 10,000 images.
- Reduced false braking events by 31%, improving model transparency for real-time safety-critical decisions.
- Boosted pedestrian detection accuracy by 18%, supporting safer AV navigation across urban driving.

Statistical Analysis of Online Sales Data | *Python, Pandas, SciPy, ANOVA, Chi-Square* - Link

- Analyzed over 1.2M transaction records using statistical methods to uncover purchase trends.
- Identified key factors influencing sales, leading to a 15% improvement in pricing strategy accuracy and ROI.
- Delivered executive dashboards summarizing insights, used by leadership to inform quarterly plans.

Marketing Strategy Optimization | *ArcGIS, StoryMap, Python, Data Visualization* - Link

- Mapped customer engagement data in 5 zones, identifying underperforming areas with a 25% lower ROI.
- Implemented targeting strategies that increased regional engagement by 30% and marketing ROI by 18%.
- Created interactive visualizations to present findings to stakeholders, improving planning efficiency.

Job Posting Classification | *Python, Scikit-learn* - Link

- Built a classification model using TF-IDF and logit model to detect fraudulent job posts with 75% accuracy.
- Reduced manual review overhead by 60%, enabling scalable fraud detection across thousands of listings.
- Improved platform integrity by flagging high-risk listings based on learned linguistic and structural patterns.

Accomplishments

- **Winner - SCB Business Analytics Competition 2025:** Championed the selection of Claude 3 as RIT's AI platform by benchmarking GPT-4 and Mistral across cost, performance, privacy, and fairness.
- **Published Research - Application to Detect Skin Cancer using CNN (IJLTET, 2020)** - Link**:** Built an 82% accurate MobileNet-based melanoma detection model validated against dermatological benchmarks.
- **Certifications - Oracle Cloud Infrastructure AI (2025):** Generative AI Professional, AI Foundations Associate, AI Vector Search Professional and AI Data Science Professional.