

Achyut Sridhar Kulkarni

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PROFESSIONAL EXPERIENCE

Founding Engineer, Jorts app

August 2025 - Present

Charlotte, NC

- Leading the development of Jorts App to connect local communities through personalized event discovery, developing end-to-end architecture and ML systems driving beta rollout and early engagement lift of 28%.
- Designed MongoDB and GCP infrastructure for messaging and media pipelines, improving throughput and uptime.
- Tuned MongoDB queries and caching layers for real-time use cases, cutting data-read latency 40% under production load.
- Modeled user graphs in Neo4j to map relationships and boost event discovery accuracy 28% for recommendations.
- Partnered with product teams to embed insights into recommendation workflows, reducing churn 15% in pilot markets.

Data Scientist, Megh Computing

August 2020 - March 2023

Bengaluru, India

- Delivered production ready video analytics pipelines for enterprise clients optimizing TensorRT based models and scaling inference services across AWS and GCP for reliable real time detection.
- Cut inference latency 40% by tuning CNN models like YOLOv5 and Faster R-CNN with TensorRT and OpenVINO.
- Deployed hybrid cloud-edge AI solutions that boosted efficiency 30% and ensured stability in low-bandwidth setups.
- Built Video Analytics SDK that cut client onboarding 35% and automated CI/CD benchmarking to halve debugging time.
- Customized AI models to align with client KPIs, ensuring seamless integration and faster proof-of-concept approvals.

EDUCATION

Rochester Institute of Technology - Master of Science in Data Science

Cumulative GPA: 3.9

August 2023 - May 2025

Rochester, NY

Relevant Courses: Applied Statistics, Database Design & Implementation, Software Engineering for Data Science, Applied Data Science I & II, Neural Networks, Natural Language Processing, Software Construction.

TECHNICAL SKILLS

- **Programming Languages:** Python, R, SQL, Java, C++
- **Statistics and Machine Learning:** Regression, ANOVA, Hypothesis Testing, A/B Testing, XGBoost, Random Forest, Logistic Regression, SVM, Clustering, PyTorch, TensorFlow, CNNs, Autoencoders, Transfer Learning
- **Data Engineering:** Pandas, NumPy, Spark, PySpark, Airflow, ETL, Power BI, Tableau, Matplotlib, Seaborn, Plotly
- **Databases and Cloud:** PostgreSQL, MySQL, MongoDB, Neo4j, AWS (EC2, S3, SageMaker), GCP (BigQuery, Vertex AI)
- **MLOps and Experiment Tracking:** MLflow, DVC, Docker, CI/CD, Model Registry, A/B Deployment
- **Generative AI:** Transformer LLMs (GPT, Claude, Gemini, Mistral, Gemma), Fine-Tuning, Prompt Engineering, RAG, Vector DBs (FAISS, Pinecone, Chroma), LangChain, LangGraph

PROJECTS

Autonomous Vehicle Safety (Explainable AI) | Python, TensorFlow, OpenCV, CRAFT, TCAV - [Link](#)

Collaborators: Toyota Research Institute, University of Florida, University of California Irvine

- Built an explainable vision system to make self-driving perception models more trustworthy and auditable.
- Added an interpretability layer that visualized which image regions influenced object detection decisions.
- Audited over 10K driving frames to pinpoint why the model triggered false braking under shadows and rain.
- Re-trained detection layers on curated samples, cutting false braking 31% and raising pedestrian accuracy 18%.

Statistical Analysis of Online Sales Data | Python, Pandas, SciPy, ANOVA, Chi-Square - [Link](#)

- Analyzed a large e-commerce dataset to uncover pricing and seasonality factors driving conversion and ROI.
- Cleaned and normalized 1.2M+ sales records to model relationships between discounts, timing and sales lift.
- Ran ANOVA and correlation tests confirming pricing thresholds that influenced conversion peaks.
- Designed dashboards that visualized these insights, improving pricing accuracy 15% and ROI 12%.

Marketing Strategy Optimization (GIS) | ArcGIS, StoryMaps, Python, Power BI - [Link](#)

- Developed a spatial analytics dashboard to show where marketing spend was underperforming and why.
- Merged engagement, cost and location data to identify 25% ROI gaps across regional campaigns.
- Automated refresh pipelines connecting Power BI and ArcGIS for live weekly updates.
- Enabled budget redistribution that increased engagement 30% and ROI 18%.

ACCOMPLISHMENTS

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