

Archit Roy

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Data Scientist building production systems across predictive ML, NLP, generative and voice AI, multimodal evaluation, and pricing. Owns analysis, experimentation, development, deployment, monitoring, and ongoing improvements in partnership with product, engineering, operations, finance, and business teams.

EXPERIENCE

Zoomcar

Feb. 2025 – Present

Data Scientist 2

Jul. 2026 – Present

- Owned Zoomcar's dynamic pricing engine across all live cities (**DS-Basefare**, **DS-Matra**, **DS-Zoomplus**, **DS-Storks**), managing production changes, peak configurations, stakeholder approvals, and ITGC controls. Shipped asset- and variant-level pricing and limited/unlimited-kilometre products; automated Goa base fares using multi-source signals and hierarchical fallbacks, cutting refresh cycles from weeks to **under 30 minutes**.
- Built **Watchdog V1/V2**, a business evaluation and diagnostic system that localizes anomalies in conversion, bookings, GBV, and pricing, quantifies impact, and recommends next actions based on likely drivers; post-calibration validation showed **96% agreement** with analyst and business assessments. Delivered daily stakeholder reports through **Pigeon**.
- Designed **AIB-Tanisha**, a multilingual voice-AI agent for app-review outreach, with state-based conversation flows, complaint handling, and refusal guardrails; developed an end-to-end adversarial evaluation harness for English/Hindi/Hinglish calls, interruption recovery, rating neutrality, and safe termination.
- Maintained production DS infrastructure across VMs and Kubernetes, partnering with DevOps on VM upgrades, deployments, dependency and access fixes, and incident resolution.

Data Scientist 1

Oct. 2025 – Jun. 2026

- Built **DS-Osiris**, a checkout drop-off propensity modeling system using **XGBoost**, deployed on Kubernetes to identify high-intent users and enable targeted CRM interventions; top-decile users showed a **3.16× conversion lift** over baseline.
- Built **DS-Pixel**, a car image enhancement pipeline (generative AI, LAION aesthetic scoring, GCV validation) served via a Kubernetes API; multi-city A/B tests showed CTR rising by **1.68 pp** for enhanced listings and falling by **1.57 pp** for non-enhanced listings.
- Maintained and enhanced **DS-Cipher**, an LLM-powered dispute resolution platform analyzing customer transaction histories, trip logs, calls, and chats to automate cancellation and host-guest support workflows.
- Implemented host-rating reversal automation within DS-Cipher, auto-resolving approximately **51% of eligible tickets at 94% audited accuracy**, directly reducing manual EC team operational load.
- Developed and maintained **DS-Alerts**, a centralized monitoring and alerting framework tracking execution health, infrastructure reliability, and database integrity across all production data-science services.

Data Science Intern

Feb. 2025 – Sep. 2025

- Independently developed **DS-Nemo**, an end-to-end review summarization system for checkout pages, exploring statistical, extractive, fine-tuned transformer, and LLM-based approaches; drove a **46% reduction in review clicks** and a **12% decrease in checkout session duration**.
- Engineered a fault-tolerant production LLM pipeline with independent product-contract and faithfulness evaluations, automated guardrails, bounded repair and re-summarization loops, adversarial regression testing, tracing, and failure quarantine; deployed on Kubernetes and asynchronous cron infrastructure to serve **200K+ daily requests at 17 ms uncached p99 latency** (optimized from approximately 150 ms), with **zero reported downtime over 10+ months**.

TECHNICAL SKILLS

Languages & Data: Python, SQL, Pandas, NumPy, BigQuery, MySQL

ML & Deep Learning: PyTorch, XGBoost, Scikit-learn, Hugging Face Transformers, Feature Engineering, Ranking, Model Evaluation, SHAP

Statistics: A/B Testing, Hypothesis Testing, Temporal Validation, Time-Series Anomaly Detection, Regression

AI Engineering: Generative AI, Voice AI, Fine-Tuning, RAG, LLM and Agent Evaluation, Evaluation Harnesses, Prompt Engineering, Guardrails, Structured Outputs, Hallucination Detection, Multimodal Evaluation, DeepEval

MLOps, Cloud & Observability: Model Serving, Batch Pipelines, REST APIs, Flask, Docker, Kubernetes, Kafka, GCP, Vertex AI, Jenkins, ArgoCD, Langfuse, OpenTelemetry, SigNoz, New Relic

EDUCATION

Vellore Institute of Technology

Vellore, India

B.Tech. in Information Technology; CGPA: 9.09/10.0

Jul. 2021 – Aug. 2025