NIRAV REDDY RAMIDI

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PROFESSIONAL SUMMARY

Data Scientist / ML Engineer with end-to-end delivery across data engineering, modelling, and MLOps. Experience unifying fragmented data into a **single source of truth** (BigQuery), building and evaluating predictive models (LightGBM, CNN/OCR, NLP), and deploying services to cloud-native infrastructure (Docker/Kubernetes/Vertex AI) with measurable impact (e.g., **>80%** manual-effort reduction, **7.9%** MAPE forecasting, **p95 < 300 ms** at **∼1k req/s**). Comfortable owning requirements → design → build → test → deploy, reporting metrics to stakeholders, and running a reliable rhythm of business.

CORE SKILLS

- **Languages:** Python (pandas, NumPy, scikit-learn, TensorFlow, PyTorch), SQL, Bash; Java, C
- **ML:** supervised/unsupervised learning, feature engineering, hyperparameter tuning, model selection, cross-validation, ROC/AUC, SHAP/feature importance; CNNs (OCR/vision), basic NLP
- **Data Engineering:** BigQuery/SQL, ETL/ELT, Airflow/Composer, Cloud Functions, REST APIs, dbt (familiar)
- **MLOps & Cloud:** Docker, Kubernetes (basic), Vertex AI, Cloud Run, MLflow (registry), CI/CD fundamentals
- **Analytics & Viz:** Tableau, Power BI, matplotlib, seaborn, Vega-Lite; KPI dashboards & service review decks
- **Experimentation:** reproducible pipelines, benchmarking, queueing/perf analysis, statistical summaries
- **Collaboration:** stakeholder communication, SLA tracking, incident management, Agile/Scrum, Git/GitHub

EXPERIENCE

Data Science Analyst Intern — Icon Life Sciences *(Remote, Hyderabad, India)* *May 2025 – Sept 2025*

- Unified **12+** data silos (ERP/CRM/e-commerce/3rd-party Rx) into a **golden-source** data lake on GCP BigQuery with Cloud Functions & Airflow, covering **108** SKUs in **25** therapy areas; reduced manual Excel work by **>80%** and enabled consistent reporting.
- Designed a brand-level LightGBM demand-forecast (quarterly) with **MAPE 7.9%**; insights informed production planning and helped reduce **stock-outs by 18%** for CNS therapies.
- Ran weekly/monthly stakeholder reviews with commercial, supply-chain, and IT; tracked risks/actions/owners to keep deliverables on-SLA and communicated status to leadership.

Junior Machine Learning Engineer — iAssist Innovation Labs *(Karnataka, India)* *Apr 2024 – Sept 2024*

- Supported go-live for a **CNN-OCR** and **auto-adjudication** solution adopted by **two top-5** Indian health insurers; triaged client queries with product/engineering to resolution.
- Implemented computer-vision quality checks (de-skew, resolution normalisation, file-type validation) in a mobile doc-collection app, reducing re-submissions and improving first-time-right uploads.
- Contributed to a Docker/Kubernetes-deployed vision microservice; achieved **p95 < 300 ms** latency and **∼1,000 req/s** in load tests with **∼0.2%** error rate.

AI & ML Intern — iAssist Innovation Labs *(Karnataka, India)* *May 2023 – Sept 2023*

- Automated GCP data pipelines (Cloud Storage → BigQuery; Vertex AI; Airflow), improving data validity to **99%** and reducing preprocessing latency by **∼40%**.
- Curated/labeled **∼1.2M** images and trained a TensorFlow **EfficientNet-B3** classifier (**Top-1 ∼92%** on hold-out); tracked artefacts in **MLflow** and produced handover docs.
- Delivered a **FastAPI** microservice prototype for model inference; documented API contracts and monitoring hooks.

Application & Web Design Intern — iAssist Innovation Labs *(Karnataka, India)* *May 2022 – Sept 2022*

- Built a **Flutter** mobile app for pharmaceutical inventory scanning; implemented camera/scan flows, local caching, and error handling.
- Developed a **React.js** web UI for admins (product lookup, search, audit trails) backed by REST APIs.
- Shipped a **FastAPI + PostgreSQL** barcode/QR extraction service on cloud infrastructure; designed tables, indexes, and validation; introduced microservices & API gateway for near–real-time sync.
- Set up **CI/CD** pipelines (build/test/deploy), cutting release friction and improving reliability.

Business Analyst Intern — iAssist Innovation Labs *(Karnataka, India)* *Dec 2022 – Jan 2023*

- Analysed operational data with **Tableau**; built interactive dashboards for KPIs and trend analysis; refined KPI definitions and data-visualisation strategies with product/engineering.

Web Development Intern — iAssist Innovation Labs *(Karnataka, India)* *May 2021 – Sept 2021*

- Delivered a cloud-hosted web solution for an insurance client (front- and back-end features); dockerised services for consistent builds and streamlined deployment.

LEADERSHIP & ENTREPRENEURSHIP

Treasurer — UCD Badminton Club & Music Society *Jan 2023 – Sept 2024*

- Managed ∼€25,000 budgets across events and allocations; produced monthly financial statements for committees and SU; improved transparency and on-time reporting.

Founder — FarmEasy (Backyard-to-Table Micro-Farm) *Jan 2020 – Sept 2022*

- Launched and operated a COVID-era micro-farm; owned planting, harvesting, packaging, and last-mile delivery; built a recurring local customer base via WhatsApp/Instagram and coordinated weekly order cycles.

SELECTED PROJECTS & RESEARCH

- **Cloud-Native Library Analytics Platform** (FastAPI, PostgreSQL, RabbitMQ, Docker, GKE): 4-service micro-architecture (User/Book/Borrow/Analytics) with async messaging for GDPR-compliant events; achieved **∼1,100 req/s @ ∼280 ms p95**; documented APIs, manifests, and runbooks.
- **SLAM on Mobile Devices using LiDAR** (Open3D, NumPy, SciPy, Matplotlib): research direction evaluating ICP variants and sensor-configuration trade-offs for real-time localisation under CPU/battery constraints.
- **Astronomy Classifier (SDSS)** (scikit-learn, pandas, matplotlib): DT/k-NN/SVMs; filter & wrapper feature selection; CV hyperparameter sweeps; one-vs-rest ROC by class; model chosen on macro-AUC/F1.
- **Healthcare Data Mining Pipeline** (pandas, scikit-learn, imbalanced-learn): EDA → cleaning → imputation → scaling → SMOTE; classifier comparison with ROC/PR; metric justification.
- **PostgreSQL Data Warehouse & OLAP** (PostgreSQL, SQLAlchemy): snowflake schema; cohort/retention & group aggregates; reusable CRUD helpers; dashboards for decision support.
- **Market-Basket Mining** (Apriori/FP-Growth): one-hot baskets; mined frequent itemsets; distilled high-support/high-confidence rules; visualised lift/confidence patterns.
- **Performance Engineering (Queueing Models)** (Python/Excel): M/D/1, M/M/1, M/M/1/n, M/M/K; derived resource-scaling rules and SLO-focused recommendations; delivered plots and an executive summary video.
- **Web Dev Marketplace** (Java, Spring Boot, Thymeleaf, Docker): auth, catalogue, product detail, cart (update/remove/total), and admin workflows (create/update, order review, soft-hide items preserving price history); JUnit tests & UML docs.
- **Software Engineering Projects** (C / Java): Twitter-like (C) with linked-list news feed (Top-10) and disciplined Git; Cascadia (Java) console game with clean OOP, unit tests, UML; sprint-based delivery.
- **Information Visualisation Tool** (Vega-Lite): interactive multi-chart explorer with user interactions; ≤1000-word design rationale and a short demo.

RESEARCH

- **LiDAR Re-localisation for Resource-Constrained Devices** (BSc Final Year Project): reproducible KITTI simulation; ablations over range/FoV/voxel/noise using point-to-plane ICP; translation/rotation error analysis; plots and a future-work roadmap.
- **Viability of a New Division at Icon Life Sciences** (IB BM HL IA, May 2021): interviews + financial/market analysis (moving averages, PMPM, P&L, GPM/NPM, break-even); strong seasonality and margins; concluded company-viable with **∼18–24 month** payback; recommended staged rollout and therapy-area rebalancing.

EDUCATION

BSc (Hons), Computer Science — University College Dublin, Ireland *Sept 2021 – May 2025*

Relevant modules (selected): **ML & Data:** Machine Learning; Data Mining; Programming for Big Data; Databases & Information Systems; Information Visualisation; Human-Centred AI **Systems & Cloud:** Cloud Computing; Introduction to Operating Systems; Performance of Computer Systems; Computer Networking **Software & Theory:** Web Development; Software Engineering Projects (C/Java); Algorithms; Data Structures; Digital Systems; Graph Algorithms; Information Security; Introduction to AI; Applied & Computational Mathematics

ADDITIONAL INFORMATION

- **Tools:** Git/GitHub, Jupyter/Colab, MLflow (registry), FastAPI, Spring Boot, Maven, SQLAlchemy, Docker, Kubernetes (basic), Airflow/Composer, Vertex AI, Cloud Run, BigQuery
- **Operating Systems:** Linux, macOS, Windows
- **Languages:** English (fluent); French (basic)
- **Interests:** applied computer vision, demand forecasting, MLOps hygiene, human-in-the-loop AI