

# CHARITHA PALLI

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## PROFESSIONAL SUMMARY

Data Analytics Engineer with 2+ years building production data pipelines, analytics models, and executive dashboards. Proven experience turning messy, high-volume data into trusted datasets used for reporting, compliance, and decision-making. Strong in Python, SQL, Airflow, AWS, Power BI, and cross-functional delivery.

## EDUCATION

### University of Massachusetts Dartmouth

Sep 2023 – May 2025

Master's in computer science – 3.74/4.00

North Dartmouth, MA

- **Coursework:** Advanced Machine Learning, Artificial Intelligence, Data visualization, Database design, Algorithms complexity, Computer Networks, Paradigmatic Software Development, Computer Security

## SKILLS

**Data Analytics:** SQL, Python (Pandas, NumPy), Exploratory Data Analysis, Data Cleaning, Statistical Analysis, Forecasting, Time Series Analysis, Regression, A/B Testing, KPI Definition

**Business Intelligence:** Power BI, Tableau, Dashboard Development, Executive Reporting, Data Visualization

**Data Engineering:** ETL/ELT Pipelines, Data Modeling, Data Validation & Quality Checks, Workflow Automation

**Databases & Cloud:** PostgreSQL, MySQL, MSSQL, Snowflake, AWS (S3, Redshift, EC2), Azure Data Factory

**Machine Learning (Applied):** Feature Engineering, Predictive Modeling, Model Evaluation, PyTorch, TensorFlow

**Tools & Practices:** Git, Docker, CI/CD, Linux, REST APIs, Agile/Scrum

## WORK EXPERIENCE

### Data Analytics Engineer

Jul 2025 – Present

Greenstand

Remote, US

- Built and maintained scalable ETL pipelines processing 10+ TB/week, enabling reliable analytics across finance, compliance, and operations.
- Designed analytics-ready data models and marts, improving forecasting accuracy by 15%.
- Developed AML-compliant datasets with automated validation, eliminating 30+ hours/week of manual preparation.
- Implemented data quality checks (schema, nulls, anomalies) that increased trust in executive dashboards.
- Partnered with product, compliance, and engineering teams to translate business questions into reusable datasets.
- Optimized warehouse performance and enabled Power BI/Tableau dashboards consumed by leadership.

### Cloud Engineer

Oct 2022 – Jul 2023

Mactores

Mumbai, India

- Analyzed large healthcare datasets to identify trends, inefficiencies, and data quality issues used in reporting.
- Built automated ingestion and transformation pipelines using Python and SQL.
- Resolved 200+ data inconsistencies through validation and reconciliation workflows.
- Designed Power BI dashboards tracking operational KPIs, improving leadership decision-making by 20%.
- Translated reporting needs to optimize SQL views and aggregates for repeatable analytics.
- Supported AWS-based analytics infrastructure, improving performance for downstream reporting.
- Collaborated with engineering and business teams, ensuring healthcare reports were accurate, timely, and aligned with operational needs.

### Data Analyst

Jan 2021 – Sep 2022

Retron Energie

Hyderabad, India

- Analyzed high-frequency time-series data, identifying anomalies responsible for 80% of peak energy inefficiencies.
- Automated reporting workflows with Azure Data Factory, cutting manual effort by 70%.
- Performed EDA to uncover trends driving operational and strategic decisions.
- Prepared clean datasets for forecasting models, improving prediction accuracy by 15%.
- Presented insights to non-technical stakeholders, directly influencing resource allocation.
- Converted raw analytical findings into clear recommendations, helping operations teams prioritize efficiency improvements with measurable cost and performance impact.

PROJECTS

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**Image Classification & Auto Tagging system** | *Python, ResNet, Transfer Learning, Computer Vision*      **Jan 2025 – May 2025**

- Built an automated image classification and tagging pipeline to label images at scale.
- Fine-tuned a ResNet model on *k* labeled images using transfer learning for efficient model convergence.
- Achieved **94% validation accuracy** through optimized data augmentation and model tuning.

**Dynamic Pricing Model** | *Python, SQL, Regression Model, Pandas, NumPy, Feature Engineering*      **Feb 2024 – May 2024**

- Developed a regression-based dynamic pricing model to optimize prices based on demand, supply, and time factors.
- Engineered pricing features from historical housing and market data to enable real-time price adjustments.
- Improved **revenue per transaction by 11%** in controlled simulation experiments.

**Real-time Vehicle tracking & Color recognition** | *YOLOv5, StrongSORT, Python, OpenCV*      **Aug 2023 – Dec 2023**

- Designed an end-to-end real-time computer vision and analytics pipeline to detect, track, and classify vehicles.
- Implemented YOLOv5 for object detection and StrongSORT for multi-object tracking, enabling consistent vehicle identification across video frames.
- Integrated EfficientNet-B3 for color classification, improving attributed accuracy by 18% through model tuning. Built automated pipelines to store detection metadata in structured formats for downstream analysis.

ACHIEVEMENTS

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- Collaborated with the Police Commissionerate's Traffic Division on a real-time vehicle tracking project, aligning technical solutions with operational needs and supporting data-driven traffic management.
- Presented analytical findings to non-technical stakeholders and improved executive decision-making on traffic control strategies.

CERTIFICATIONS

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- **AWS Certified Data Analytics – Speciality**
- **AWS Certified Solutions Architect – Associate**