

Lakshmi Amrutha Duvvuri

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EDUCATION

- VIT Bhopal University** (September, 2022 - Present)
Bachelor of Technology in Bioengineering | CGPA: 8.64
- Delhi Public School , Ruby Park , Kolkata** (April, 2022)
Higher Secondary | Percentage: 92.4%

SKILLS

Data Science & Analytics: Python, SQL, Machine Learning, Statistical Analysis, A/B Testing, Predictive Modeling

Visualization & BI: Tableau, Matplotlib, Seaborn, Plotly, Interactive Dashboards

Technical Stack: Pandas, NumPy, scikit-learn, Streamlit, BeautifulSoup, Selenium

Database & Cloud: MySQL, MongoDB

Business Skills: Customer Segmentation, Revenue Strategy, ROI Analysis, Market Research

PROJECTS

PredictCare: Fetal Health Risk Classifier | [Streamlit](#)

Tech: Python, Pandas, scikit-learn, FastAPI, Streamlit, pickle (June, 2025)

- Built a machine learning system to classify fetal health (Normal, Suspect, Pathologic) from CTG data, achieving 94.84% accuracy with Gradient Boosting to support early detection of fetal distress.
- Deployed an interactive Streamlit app with a FastAPI backend, allowing clinicians to visualize fetal health classifications and process 50+ CTG inputs with near-perfect accuracy.
- Optimized model parameters with grid search and cross-validation to enhance predictive reliability, and analyzed feature importance and decision boundaries to identify key predictors, improving clinical trust and model transparency.

Customer Segmentation & Revenue Strategy using RFM Analysis | [GitHub](#)

Tech: Python, Pandas, scikit-learn, Seaborn, Matplotlib (December, 2024)

- Performed end-to-end RFM-based segmentation using K-Means on transaction data, identifying 4 customer clusters and uncovering 15% churn risk in low-frequency buyers, leading to targeted retention strategies
- Identified that Cluster 2 (8% users) contributed 35%+ of revenue, prompting targeted initiatives to boost retention and reduce churn.
- Mapped customer behavior insights using Seaborn pairplot, doughnut charts and heatmaps, informing a complete overhaul of the customer journey.

CERTIFICATIONS

- Data Analysis with Python** (IBM, Coursera) - Mastered data cleaning, exploratory data analysis (EDA), and visualization using Pandas, NumPy, and Matplotlib
- Applied Machine Learning in Python** (University of Michigan, Coursera) - Gained proficiency in supervised and unsupervised learning, model evaluation techniques, cross-validation, and scikit-learn pipelines

ACHIEVEMENTS

- Ranked among top 3% globally in TCS CodeVita 2024 by qualifying Round 1 with a rank of 4112 among 150,000+ participants
- Achieved 201st position among 3000+ participants in the Implementation Round of Myntra HackerRamp 2024, post successful completion of the Ideation Phase.
- Awarded the Scholar Badge for Academic Excellence among 1200+ students in both Class 10 and 12

POSITIONS OF RESPONSIBILITY

Event Management Lead, Android Club (October, 2023 - Present)

- Led a 70+ member team to plan and execute 10+ technical and community events, overseeing timelines, and coordination. Ensured smooth delivery through structured planning and cross-team collaboration.

Technical Team Lead, English Literary Association (December, 2023 - Present)

- Guided a technical team of 5+ developers in developing the club's website, then independently organized a faculty-led event, handling logistics, promotions, and coordination, resulting in a footfall of 50+ students.