

Dhana Lakshmi Kankanala

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PROFILE SUMMARY

Data Scientist with 4+ years of experience in machine learning, predictive modeling, and data analysis to solve real-world business challenges across healthcare, tech, e-commerce, and finance. Proven ability to develop scalable AI solutions, optimize decision-making with data-driven insights, and enhance business performance. Passionate about solving complex problems through analytics and automation, collaborating with teams to drive innovation.

- Best Performer Award at Cognizant for data-driven innovation & operational excellence.
- Expert in predictive modeling & analytics, identifying patterns, and optimizing operations.

EXPERIENCE

Aug 23-Present at the University of Delaware

Growth Path: Aug 23-present: As Data Scientist and Jun 24-Aug 24: As Data Analyst

Responsibilities:

- Performed exploratory data analysis (EDA) using statistical methods (regression, clustering, hypothesis testing) to identify trends, patterns, and anomalies.
- Developed machine learning models using algorithms like Random Forest, SVM, KNN, and deep learning frameworks (CNN, RNN, PointNet, GNN).
- Built predictive models and conducted feature engineering to improve performance, addressing issues related to data quality and model accuracy.
- Extract, clean, and transform large datasets from databases, APIs, and web scraping.
- Created interactive data visualizations and dashboards using Power BI, Qlik, Excel, and Matplotlib to communicate findings and enhance organizational decision-making.
- Strong background in statistics, modeling, and optimization. Knowledge in A/B testing.
- Collaborated with cross-functional teams, including engineers, product managers, and stakeholders, to deliver scalable, data-driven solutions aligned with business objectives.
- Supported Agile methodology and SCRUM, managed CI/CD pipelines through SDLC while utilizing version control tools like Git to track model changes efficiently.
- Mentored team in applying advanced math and statistics to solve business problems.

Key Highlights:

As a Data Scientist

- Developed an AI-powered optimization model using reinforcement learning and graph-based neural networks (GNNs) achieving a **12% increase** in ROI on ad spend.
- Designed a deep learning-based predictive model utilizing computer vision to analyze consumer behavior patterns, enhancing marketing targeting accuracy by **15%**.

As Data Analyst

- Developed a real-time marketing dashboard that consolidated multi-channel advertising data, **reducing reporting time by 40%** and improving campaign decision-making.
- Optimized customer segmentation models, **leading to a 15% increase** in engagement rates and enabling personalized ad targeting.

Aug 20-Jan 23 at Cognizant, Hyderabad, India

Client 1: Southwest Airlines (Sep 21-Jan 23)

Key Highlights:

- Automated data processing workflows**, reducing manual effort & improving reporting accuracy.
- Analyzed complex datasets** to uncover actionable insights, improving operational efficiency and customer experience.
- Developed and maintained dashboards** for real-time reporting, enabling informed decision-making across business units.
- Delivered detailed performance reports and presentations**, highlighting trends and actionable recommendations for stakeholders.

CORE COMPETENCIES

- Data Collection & Preparation
- Data Analysis & Visualization
- Data Science & Machine Learning
- Quantitative & Statistical Analysis
- Business Intelligence & Reporting
- Data Wrangling & ETL
- Data Structures & Algorithms
- Data Governance & Security
- Automation & Optimization
- Problem-Solving & Strategy development

EDUCATION

- Master's in Data Science**
University of Delaware in Dec 2024.
- B. Tech in Computer Science**
SASTRA University in May 2020.

TECHNICAL SKILLS

- Full-Stack Development:** JavaScript (React JS, ES6+), HTML5, CSS, Node JS, Python, Java, C/C++, MERN stack
- Data Science:** Python (Scikit-Learn, TensorFlow, PyTorch, Keras, OpenCV), ML/DL, Data Analysis, R
- Data Visualization:** Power BI, Qlik, Excel, Matplotlib, Tableau
- Data Processing & ETL:** Pandas, Numpy, Alteryx, Power Automate
- Cloud:** AWS-EC2, S3, Microsoft Azure
- Databases:** SQL, MySQL, MongoDB
- DevOps:** GitHub, Jira, CI/CD
- Tools:** VS Code, PyCharm, Jupyter, Excel, Postman, Google Colab

TRAINING & CERTIFICATIONS

- Full Stack Development Training
- Certified MERN Stack Developer
- Certified React JS Developer
- Certified Qlik Sense and Alteryx Core designer
- Databricks Generative AI Academy Accreditation

Client 2: Walmart (Aug 20-Sep 21)

Key Highlights:

- **Conducted in-depth data analysis** to support supply chain optimization and inventory management strategies.
- **Monitored key performance indicators (KPIs)** to ensure operational excellence and drive continuous improvement.
- **Designed and executed queries to extract, manipulate, and analyze data** for forecasting and performance assessment.
- **Partnered with technical and business teams** to streamline data integration and reporting processes.
- **Identified patterns in customer behavior and purchasing trends**, contributing to demand planning accuracy.

PROJECTS

Automatic Music Generation Using Neural Networks

- Combining music, AI, and ML to generate unique and innovative musical experiences using LSTM and GRU models.
- Preprocessed piano-based MIDI dataset to extract musical features enabling effective training of original compositions.

VN-Solver: Vision-based Neural Solver for Combinatorial Optimization over Graphs

- Developed VN-Solver with 95% accuracy by converting 2D graphs into 3D point clouds with graph embeddings using GPU.
- Enhanced graph problem-solving with deep learning (PointNet, GNN), achieving results comparable to state-of-the-art methods.

Leveraging Machine Learning in the development of an advanced wearable sensor for physical rehabilitation

- Achieved 93% accuracy in gait classification with time series analysis, optimizing rehabilitation with refined data pipelines.
- Expanded dataset by 70% through semi-supervised learning, enhancing pattern detection and tech-driven healthcare solutions.