

Manisha Lagisetty

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EDUCATION

Master of Science in Data Science, San Jose State University, San Jose, California	Jan 2023 – Dec 2024
Bachelor of Computer Science and Engineering, Gitam University, India	Jun 2014 – Apr 2018

SKILLS

Programming and Database Managment: Python, PySpark, SQL(MS SQL, MySQL), Snowflake, Microsoft SSMS

Machine Learning Techniques: Regression, Classification, Time-series Analysis, CNNs, GANs, NLP

Statistical Techniques: A/B testing, Hypothesis testing, Regression analysis, Time Series Forecasting

Data Visualization and Reporting: Tableau, Microsoft Power BI, Microsoft SSRS, MS Excel

Cloud Platforms and Big Data: AWS, Microsoft Azure, Hadoop, Spark, Kafka

Data Engineering and Analytics: ETL, Data Pipelines, Data Modeling, Data Integration, Data Cleaning, Data Wrangling, Predictive Analytics

Tools and Version Control: Microsoft SSIS, Anaconda Navigator, Qt Designer, Jupyter Notebook, Git, GitHub, Trello, Agile, Waterfall, JIRA, Confluence

WORK EXPERIENCE

Data Analyst, Cognizant Technology Solutions Oct 2018 – Jun 2022

- Analyzed intricate data to develop and implement A/B testing strategies, resulting in a 15% improvement in user engagement and experience across business platforms.
- Developed and implemented SQL-based business rules, Python scripts, and ETL processes to automate operations, leading to significant cost reductions and a 20% improvement in processing time. Enhanced productivity by streamlining data workflows and improving data accuracy.
- Created and monitored Key Performance Indicators (KPIs) to evaluate the performance of business initiatives. Built responsive dashboards in Tableau to deliver real-time insights to stakeholders, accelerating decision-making speed by 25%.
- Generated automated reports that effectively communicated complex data trends, aligning business strategies and contributing to a 12% increase in productivity.
- Collaborated with cross-functional teams to enhance data segmentation models and conducted hypothesis-driven experiments to test and optimize strategies, leading to improved business outcomes and more efficient processes.

PROJECTS

UAV-based Street Road Inspection for Smart Cities Using Machine Learning ([Demo](#)) Jan 2024 – Dec 2024

- **Objective:** To Automate detection and severity classification of road anomalies to enhance transportation safety and infrastructure management.
- **Implementation:** Developed a modular two-stage framework integrating advanced deep learning techniques for precise anomaly detection and category-specific models for severity assessment, leveraging UAV imagery. Delivered actionable insights through an interactive dashboard for efficient decision-making.
- **Tools:** Python (PyTorch, OpenCV), Deep Learning (YOLOv8, MobileNetV1-SSD, Vision Transformers, Faster-RCNN)

The Learning Agency Lab: PII-Data-Detection (Kaggle Competition) ([GitHub](#)) Jan 2024 – May 2024

- **Objective:** To develop a model that detects personally identifiable information (PII) in student writing.
- **Implementation:** Applied Natural Language Processing techniques to analyze and identify PII-related patterns, including names and email addresses. The model enhances data privacy by accurately detecting sensitive information, improving safety in learning environments.
- **Tools:** Python, Natural Language Processing (NLP) techniques, Deep Learning (DistilBERT)

AI-Driven Application for Diabetes Care Predictive ([GitHub](#)) Jan 2024 – May 2024

- **Objective:** To improve diabetes care by utilizing predictive analytics and offer personalized health recommendations.
- **Implementation:** Designed an intuitive, real-time application employing machine learning models to assess diabetes risk using individual health data. The system provides highly accurate predictions, enabling users to manage their condition with tailored lifestyle recommendations.
- **Tools:** Python (Pandas, Matplotlib, Seaborn, Streamlit), Machine Learning and Data Mining techniques

Natural Disaster Prediction Using Machine Learning ([GitHub](#)) Aug 2023 – Dec 2023

- **Objective:** Enhance global resilience by predicting future natural disasters and provide early preventative measures.
- **Implementation:** Developed and fine-tuned machine learning models, including classification and time-series analysis, to forecast natural disasters using historical data. Employed Python for data preprocessing and model training, ensuring high accuracy and reliability in predictions.

- **Tools:** Python (Pandas, Scikit-Learn, Matplotlib, Seaborn), Machine Learning (Classification, Time-Series Analysis)

Crime Prediction Using Machine Learning ([GitHub](#))

Aug 2023 – Dec 2023

- **Objective:** To create a predictive system for identifying high-risk areas and proposing data-driven strategies for safer neighborhoods.
- **Implementation:** Analyzed historical crime data to uncover patterns and develop predictive models using advanced data analysis techniques. Achieved a 91% F1-Score with tree-based models, enhancing resource allocation and strategic planning for crime prevention.
- **Tools:** Python (Pandas, Scikit-Learn, Matplotlib, Seaborn), Machine Learning(XGBoost, Random Forest, Decision Tree)

E-Commerce Application ([Demo](#))

Jan 2023 – May 2023

- **Objective:** Analyze marketing trends and revenue to optimize business performance and identify potential issues.
- **Implementation:** Built an integrated and interactive analytical application using Python (PyQt5) for real-time KPI monitoring and insights into customer behavior. Leveraged MySQL for data storage and retrieval while utilizing ETL processes with NumPy and Pandas to streamline data workflows.
- **Tools:** Python (PyQt5 GUI, NumPy, Pandas), MySQL, SQL Workbench

A Cross Country Region Wise Analysis of Adolescent Delinquency ([GitHub](#))

Jan 2023 – May 2023

- **Objective:** To understand the root causes of adolescent delinquency and identify potential interventions.
- **Implementation:** Conducted a comprehensive analysis of large-scale adolescent delinquency datasets, utilizing Tableau for data visualization and statistical analysis to uncover patterns, correlations, and regional hotspots of delinquent behavior. The findings were presented through interactive dashboards, enabling data-driven decisions for effective interventions.
- **Tools:** Tableau, Python (Pandas, NumPy, Seaborn, Matplotlib)