

GANASIAM REDDY MANDEPUDI

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EDUCATION

University at Buffalo, The State University of New York – Buffalo/USA

August 2023 – December 2024

Master of Science in Engineering Science (Data Science)

GPA: 3.7

TECHNICAL SKILLS

Programming Languages: Python, C, MySQL, R, MATLAB.

Scripting Languages: Bash, Shell, JSON

Cloud Technologies: AWS, Azure.

Tools: Jenkins, Nagios, Git, Excel, ServiceNow, Power Bi, Tableau, Spark, Hadoop, Kafka, Databricks.

Frameworks: NumPy, Pandas, Matplotlib, Scikit-learn, Seaborn, Keras, Pytorch, TensorFlow, CNN, NLP.

WORK EXPERIENCE

TATA CONSULTANCY SERVICES, India – DevOps Engineer

July 2021 – July 2023

- Managed production servers and created development and test environments replicating the production setup to ensure seamless operations.
- Provided 24/7 support and participated in daily standup meetings, tracking tasks using Jira as part of an Agile methodology.
- Automated routine tasks, including instance resizing, volume resizing, and production data backup, by creating Jenkins pipelines, significantly reducing manual intervention.
- Proposed and implemented a cost-saving solution by automating the adjustment of AWS storage classes based on specific requirements.
- Developed a Lambda function triggered by AWS EventBridge to automate IP whitelisting in AWS WAF, addressing access issues effectively.
- Innovated a Slack-based instance resizing solution to accommodate non-technical users, enabling them to perform tasks via simple Slack commands, thereby simplifying the process and improving efficiency.

FRAGMA DATA SYSTEMS, India – Data Analyst

August 2020 – June 2021

- Engineered ETL processes and data warehousing solutions, utilizing Azure Data Factory (ADF) pipelines and Databricks notebooks to automate data ingestion from various sources, including Azure Data Lake Storage (ADLS), SFTP, SharePoint, and Dataverse.
- Developed Power BI reports with Row-Level Security (RLS) to ensure data confidentiality, and access control.
- Authored Databricks notebooks for SQL query execution and automated result dispatch, improving data handling and reporting efficiency.
- Managed the onboarding of new datasets, performed comprehensive data testing, and conducted periodic enhancements to the data framework, ensuring continuous improvement.

ACADEMIC PROJECTS

Bank Customer Churn Prediction: Python, Data Cleaning, Sampling, Feature Engineering, Machine Learning.

- Built machine learning models (Logistic Regression, K-Nearest Neighbors, Naive Bayes, Random Forest, and SVM) to predict bank customer churn, achieving 71.14% accuracy, and applied data preprocessing techniques such as data cleaning, handling missing values, SMOTE, and Random Under-sampling for dataset balancing.
- Developed a user-friendly web application for real-time churn prediction, allowing stakeholders to input customer data and receive instant churn risk assessments.

Retail Data Management System: SQL, Database Normalization, Relational Models, Indexing, Query Optimization.

- Developed a retail data management system with normalized tables and relational models to enhance data integrity, and improved query performance by over 50% using SQL optimization and indexing.
- Created an interactive dashboard for real-time access to sales, customer, and inventory data, supporting teams in sales, marketing, inventory management, and customer support.

Handwritten digit classification: Python, SVM, CNN, TensorFlow, Keras, Image Classification.

- Developed a machine learning model for handwritten digit classification using the MNIST dataset, the objective is to accurately predict the digits (0 to 9) in the test set.
- Achieved exceptional results with SVM, reaching a test accuracy of 98.37% after fine-tuning, and CNN model with peak accuracy of 99.03%, demonstrating superior performance for image classification tasks.

CERTIFICATIONS

- AWS Certified Cloud Practitioner.
- Microsoft Certified Azure Fundamentals.
- Microsoft Certified AI Fundamentals.
- Microsoft Certified Data Fundamentals.
- Udemy Certified AWS SysOps Administrator.