

Sai Mona Duvvapu

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PROFILE

Aspiring analyst with 3 years of experience optimizing deployment pipelines and enhancing security. Leveraged Python, SQL, and statistical modeling extensively in projects to build ETL processes, visualize data insights, and drive analytics-based recommendations in academic and professional projects. Willing to relocate for suitable opportunities.

EDUCATION

Purdue University

Master of Science, Business Analytics and Information Management, GPA: 3.5/4

Indiana, IN

Aug. 2023 – Jul. 2024

Chaitanya Bharathi Institute of Technology

Bachelor of Engineering, Information Technology, GPA: 7.49/10

Telangana, India

Jul. 2016 – Sep. 2020

SKILLS SUMMARY

- **Technical Skills:** MySQL, Python, R, Shell Scripting, HTML, JavaScript, CSS
- **Frameworks:** Numpy, Pandas, Matplotlib, Scikit-learn
- **Computer Skills:** Minitab, SAS EM, Tableau, Power BI, Microsoft Office, Lucidchart, Smartsheet

EXPERIENCE

Prediction Guard

Indiana, United States

Data Science Consultant (Industry Practicum)

Jan 2024 - Mar 2024

- Implemented federated learning (FL) framework across simulated clients, enabling privacy-preserving model training without data centralization in text translation, image classification & text classification.
- Fine-tuned mBART language model (611M params) for English-Hindi translation using federated learning, improving BLEU score from 7.56 to 11.49 (+51%)
- Reduced mBART model size from 2.9GB to 3.1MB using Adapter module, aiding FL on resource-constrained devices
- Outperformed centralized approach by 3% in accuracy for federated text classification on IMDB dataset with BERT model

Ford Motor Pvt. Ltd.

Tamil Nadu, India

Senior DevOps Engineer

May 2022 - Jul. 2023

- Implemented end-to-end CI/CD pipelines, leveraging Jenkins to enable automated deployment of code from Git and reduced deployment time by 45%
- Automated access provisioning for UAT and analytics systems, cutting fulfillment time for data requests by 35% for Level 1 team and created health validation checks and alerts for production servers improving availability by approx. 20%

DevOps Engineer

Jul. 2020 - Apr. 2022

- Developed ETL processes to ingest multi-format data from higher environments to lower environments, including images and videos - reduced manual efforts by 50% and accelerated user acceptance testing
- Architected and maintained secure data infrastructure on Linux servers and CDN, following cyber security best practices to ensure integrity of sensitive information

Application Support Analyst

Jul. 2020 - Dec. 2020

- Collaborated cross-functionally with multiple product teams to ensure adherence to global Critical Success Factor & Critical To Quality metrics and resolved 100% of data issues reported by internal customers within SLA.

PROJECTS

Optimizing Gap Inc.'s Trends and Product Strategy | Python, Case Analysis, Web Scraping

- Performed web scraping to collect and analyze over 5K product data points from e-commerce sites including Amazon and Zara along with Gap Inc.'s subsidiaries to draw insights on the impact of data-driven creative process

Marketing Campaign Optimization Database Refinement | SQL, Data Engineering, Normalization, Query Optimization

- Led the normalization of a Marketing firm's database to significantly enhance data integrity and efficiency, resulting in 20% improvement in overall marketing campaign performance
- Optimized SQL queries and database structure, resulting in a 15% boost in customer engagement and click rates

Comparative Analysis of Streaming Platform Content | Tableau Visualization, Web Scraping, Python

- Designed and developed interactive Tableau visualizations to display the comparative analysis of film and TV content catalogs across leading streaming platforms, including Netflix, Amazon Prime Video, and Disney+
- Utilized the PyMovieDb wrapper to automate the scraping of IMDB ratings

SKILLS AND ACTIVITIES

- **Certifications:** AWS Solution Architect Associate, Microsoft Azure: Cloud Fundamentals, Tableau Desktop Specialist, Google Cloud Digital Leader
- Secured 2nd runner-up position in Consult Your Community (CYC) Case Competition on addressing affordable housing shortage in Greater Lafayette
- Served 2 terms as Vice President of Membership, leading initiatives that enhanced the 20-membered Toastmasters club's engagement by 45%.