

Sai Mona Duvvapu

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PROFILE

Engineer with 3+ years of experience implementing CI/CD pipelines, automating deployments, and ensuring application security. Experienced in Jenkins, Git, Linux server administration and adaptable to work on Azure, GCP or AWS. Skilled in optimizing cloud infrastructure, collaborating with cross-functional teams, and driving continuous improvement through automation, innovation, and analytics.

EDUCATION

Purdue University

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

Indiana, United States

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, Minitab, SAS EM
- **Frameworks:** Numpy, Pandas, Matplotlib, Scikit-learn
- **Visualization & Management Skills:** Tableau, Power BI, Microsoft Office, Smartsheet, Rally, Splunk, Dynatrace

EXPERIENCE

Prediction Guard

Technical Consultant (Industry Practicum)

Indiana, United States

Jan 2024 - Mar 2024

- Implemented federated learning (FL) framework across simulated clients, enabling privacy-preserving model and complying with policies like GDPR, HIPAA, CCPA.
- Optimized and deployed large language models (LLMs) like mBART on high-performance computing (HPC) servers, reducing model size by 99.5% (from 2.9GB to 3.1MB) using efficient Adapter modules to facilitate federated learning on resource constrained devices
- Executed FL for image classification on CIFAR-10 dataset, achieving 92% accuracy with 50ms training time per round
- Outperformed centralized approach by 3% in accuracy for federated text classification on IMDB dataset with BERT model

Ford Motor Pvt. Ltd.

Senior DevOps Engineer

Tamil Nadu, India

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% for 8 projects
- Automated access provisioning for the web application, 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%
- Integrated Checkmarx (SAST Tool) into the deployment pipelines, reducing security vulnerabilities in Git code by 95%
- Orchestrated the migration from AEM 6.4 to AEM 6.5, overseeing all stages from initial assessment to final deployment

DevOps Engineer

Dec. 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
- Led the coordination between business stakeholders and domain provisioning team for the eCommerce websites of 5 countries
- Troubleshoot and resolved network-related issues for all the markets due to network misconfigurations and API failures.

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
- Achieved top 5% project grade through demonstrated analytical rigor and effective limitations evaluation

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

CERTIFICATIONS

- **Certifications:** AWS Solution Architect Associate (SAA-C03), Microsoft Azure: Cloud Fundamentals, Tableau Desktop Specialist, Google Cloud Digital Leader (GCP)