




Bhavya Samhitha Mallineni

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Professional Summary

Data Scientist with over 2 years of experience in building predictive models and analyzing large datasets using Python, SQL, and GCP. Demonstrated expertise in cleaning, preprocessing data, and deploying scalable machine learning solutions to drive business outcomes. Proven ability to optimize data pipelines, enhance model accuracy, and deliver actionable insights in dynamic environments, including retail and supply chain.

Education

University of Southern California

Aug 2023 - May 2025

Master of Science, Electrical Engineering (GPA: 3.87/4.0)

- **Coursework:** Mathematical Optimization, Digital Image Processing, Machine Learning, Deep Learning, Probability, Linear Algebra

Osmania University, Vasavi College of Engineering

Jul 2017 - Jul 2021

Bachelor of Engineering, Electronics and Communication Engineering (GPA: 3.58/4.0)

Work Experience

Radical X | Artificial Intelligence Engineer Intern

May 2024 - Aug 2024

- Developed and deployed AI-driven features using Vertex AI APIs, Langchain, and Streamlit, achieving over 89.6% accuracy in automated grading and feedback systems while leveraging machine learning insights.
- Utilized Docker and Google Cloud Platform (GCP) to streamline scalable deployment processes and ensure the reliability of AI solutions in a production environment.

Deloitte USI Consulting | Analyst - Data Science Specialist

Sep 2021 - Jul 2023

- Engineered ETL pipelines in GCP, ensuring 100% data integrity by automating migration to SAP S/4HANA and facilitating comprehensive data preprocessing for downstream analysis.
- Enhanced validation efficiency by 20% through SQL automation and strengthened data quality via structured testing.
- Earned two performance awards for optimizing workflows and accelerating delivery under tight deadlines.
- Developed a handwriting recognition system using machine learning via GCP AI, achieving 87% accuracy in digitizing handwritten forms and incorporating robust data preprocessing.
- Optimized OCR inputs using techniques such as noise removal, normalization, and augmentation to improve accuracy and reliability of data extraction processes.
- Automated eligibility classification using ML models and deployed scalable MLOps pipelines, thereby enhancing processing efficiency while ensuring compliance and alignment with business objectives.
- Built a predictive analytics model with 81% accuracy in forecasting candidate acceptance rates, employing statistical methods and conducting A/B testing to validate model performance.
- Integrated predictions via Flask APIs and Power BI dashboards to facilitate real-time data visualization and support actionable, data-driven decisions.
- Refined large-scale recruitment data pipelines and collaborated with HR to translate business requirements into technical solutions, driving continuous improvement in key business metrics.

Project Experience

Credit Card Fraud Detection

Nov 2024 - Dec 2024

- Engineered predictive models for fraud detection, leveraging XGBoost and LightGBM.
- Achieved 96.9% AUC, enhancing risk mitigation.
- Optimized model performance through cross-validation and hyperparameter tuning for scalable deployment.

CV for American Sign Language

Nov 2023 - Dec 2023

- Designed a deep learning system for American Sign Language (ASL) recognition, leveraging ResNet-50 with PyTorch.
- Incorporated a speech module for real-time translation.
- Achieved 97.3% accuracy through data augmentation and transfer learning, enabling accessible communication.

Skills

- **Programming Languages:** Python, C, C++, C#, R
- **Machine Learning & AI:** Predictive Models, SVM, Logistic Regression, Deep Learning (Neural Networks), NLP, Gemini, XGBoost, Langchain, LLM, Vertex AI, Statistics, Mathematics, Diffusion Models, Transformer Architecture
- **Data Analysis & Visualization:** Tableau, Excel, Matplotlib, Seaborn, PowerBI, Data Analysis
- **Computer Vision:** OpenCV, OpenGL, 3D Graphics and Rendering, Blender, Adobe Illustrator, Unity, CUDA
- **Frameworks & Platforms:** Hadoop, Apache Spark, MATLAB, TensorFlow, PyTorch
- **Databases & Cloud Services:** SQL, MySQL, BigQuery, AWS, Databricks, Snowflake, Kubernetes, Google Cloud
- **Other Tools:** Git, MS Office Suite, Jira, Figma, Streamlit, Docker, RaspberryPi, Cisco Packet Tracer, CUDA, HuggingFace, Data Structures, A/B Testing, CI/CD, Statistics, Mathematics
- **Domain & Production Expertise:** Retail Experience, Supply Chain Management, Probabilistic Classification Models, Production Model Support