SAI VENKATA ADITHYA CHALLA

Los Angeles, CA, 90007
+1-213-477-9905 | challas@usc.edu | https://linkedin.com/in/adithyachalla
https://adithyachalla12.github.io/Resume

EDUCATION

University of Southern California, Viterbi School of Engineering **Aug 2024 - May 2026**
Master's, Computer Science (Data Science) (GPA: 3.82/4.0)
- **Coursework:** Analysis of Algorithms, Database Systems,Information Retrieval,Machine Learning for Data Science

GITAM University, School of Technology **Jun 2019 - Apr 2023**
Bachelor of Technology, Computer Science (GPA: 9.15/10)
- **Coursework:** Neural Networks and Deep Learning,Object Oriented Programming, BigData, Probability and Statistics,Data Warehouse and Mining

TECHNICAL SKILLS

- **Programming Languages:** C, Java, Python, R, KQL, Microsoft Azure, Spark, Databricks
- **Databases:** MySQL, MS SQL Server, Big Query
- **Data Analysis & Visualization:** Numpy, Pandas, Matplotlib, Seaborn, Power BI, Excel, Power Automate, Tableau
- **ML/AI Frameworks:** Scikit-learn, TensorFlow, Keras, PyTorch, NLTK, Beautiful Soup, Flask, OpenCV
- **Web Technologies:** HTML, CSS, JavaScript, React, Flask, Power Pages

EXPERIENCE

MAQ Software | *Software Engineer* **Aug 2023 - Jun 2024**
- Designed and deployed Microsoft Power BI dashboards integrated with Power Automate to monitor and categorize 500+ customer issues, reducing resolution time from 1–2 weeks to 2–3 days.
- Streamlined Azure-based data pipelines and ETL workflows by implementing staging tables and KQL-driven queries, boosting data processing speed by ~10% and improving integration, transformation, and troubleshooting efficiency.
- Developed custom Power BI visuals using React within the Power BI Custom Visuals SDK, enabling tailored data representations beyond standard chart libraries to meet specific business needs.

Future Ready Talent | *Intern* **Dec 2021 - Jan 2022**
- Analyzed facial attributes and implemented facial recognition using Azure Cognitive Services with python utilized OpenCV to process images, detect contours, and extract facial features for enhanced recognition accuracy.

The Sparks Foundation | *Data Science Intern* **Jul 2021 - Aug 2021**
- Conducted KPI-driven exploratory data analysis and visualization using Python, analyzing various attributes to uncover key performance trends.
- Managed data cleaning with Power Query, handling datasets with 50,000+ records, and created various pivot tables in Excel to summarize and extract actionable insights.

PROJECTS

Credit Card Fraud Detection
- Analyzed and preprocessed the credit card fraud dataset, removing redundant columns and addressing class imbalance using SMOTE.
- Predicted fraudulent vs non-fraudulent transactions using various ML models, achieving 95% accuracy with Random Forest.

Waste Classification using Transfer Learning
- Built a 9-class image classification system using transfer learning models, with EfficientNetB0 achieving the highest AUC of 97.6% and validation accuracy of 91.3%, outperforming ResNet50, ResNet101, and VGG16.
- Designed a robust training pipeline with image augmentation, early stopping after 50 epochs, learning rate reduction, and class weighting to handle data imbalance.
- Preprocessed over 5,000 images including resizing, encoding, and stratified splitting into training, validation, and test sets.
- Visualized training metrics, prediction overlays, and misclassifications using Matplotlib and OpenCV to support interpretability and model diagnostics.

Hybrid Intrusion Detection System
- Applied a correlation-based feature selection algorithm to enhance accuracy in identifying potential attack classes within the dataset.
- Trained and evaluated the performance using a Recurrent Neural Network (RNN) model, achieving an accuracy of 94.37%
- Comapred results with trained machine learning classifiers to optimize performance.

Text Prediction using DL
- Implemented LSTM-based text prediction using TensorFlow and Keras.
- Trained the model, achieving 90.3% accuracy using categorical crossentropy loss and optimized with the Adam optimizer.
- Processed and tokenized textual data for sequence modeling.

CERTIFICATIONS

- Microsoft Azure Fundamentals Certification
- Microsoft Fabric Analytics Certification