SISTU SAI VAMSI

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PROFILE SUMMARY

Passionate Software Developer with strong foundations in Data Structures, Algorithms, and Object-Oriented Programming. Experienced in designing and implementing scalable applications, working with distributed computing, and leveraging optimization techniques. Adept at solving complex problems and building innovative solutions. Seeking to leverage my skills at Amazon to develop high-impact technologies

EDUCATION

- **KL University, Vijayawada** 2021 - Present
  B. Tech in Artificial Intelligence and Data Science **CGPA: 9.54/10**
- **Sri Chaitanya Junior College,Vijayawada** 2019 - 2021
  XII - Mathematics, Physics, Chemistry **Marks: 972/1000**

EXPERIENCE & ACHIEVEMENTS

Chegg, *Tutor (Computer science and maths, India)* **June 2023– present**

- Guided over 10 Chegg students weekly in applied mathematics, statistics, and probability, achieving a 95% satisfaction rating based on student feedback surveys and improving comprehension of key concepts.

NC C, *C-certificate holder(CPL Rank)* **2021-2023**

- Led a squad of 10 cadets, achieving 90% success in team-based challenges,demonstrating leadership, discipline, and resilience.. Completed 200+ hours of advanced military training, including drills, weapon handling, survival exercises and commitment to national service.

PROJECT EXPERIENCE

Statistical Web Application **Feb 2025**

Tech Stack: Python, Flask, React,java script,HTML,CSS, NumPy, Pandas, Matplotlib, Seaborn

- Implemented descriptive statistics, including measures of central tendency, dispersion, and five-number summary.
- Designed regression analysis modules, supporting linear and polynomial regression, with evaluation metrics.
- Integrated probability distributions (Normal, Binomial, Poisson, Uniform, Exponential) with visualization graphs.
- Developed a full-stack web application for performing statistical analysis and data visualization..
- Built hypothesis testing features, supporting T-tests, Chi-Square tests, ANOVA, and Z-tests with P-values and confidence intervals.
- Added interactive visualizations: line charts, boxplots, scatter plots, and , boxplots.

TATA GROUP COMPANIES STOCK ANALYSIS DASHBOARD **OCT 2024**

- Built an interactive performance dashboard to analyze the historical stock performance of Tata Group companies.
- Provided insights through visualizations such as historical close prices, trading volume trends, and average daily returns

Emotion Detection Using CNN and FER-2013 Dataset **April 2024**

Tech Stack**:** Python, TensorFlow, Keras, ResNet50v2, VGG16, OpenCV

- Addressed class imbalance in the FER-2013 dataset by employing image augmentation and class weights, improving model robustness.
- Designed and iterated on custom CNN models, including advanced architectures such as VGG16 and ResNet50v2, to optimize performance.
- Achieved a 61% overall accuracy on emotion classification, with the final model based on ResNet50v2, detailed through precision, recall, and F1-scores across 7 emotion labels.
- Deployed the model for real-time emotion detection in live video streams using Gradio and OpenCV, showcasing emotion labels dynamically on-screen.

Credit Risk Prediction System Application **April 2025**

Tech Stack: Machine Learning | Streamlit | Logistic Regression | Feature Engineering | Model Deployment

- Built a credit risk classification model using the German Credit dataset to predict good/bad loan applicants.
- Engineered features like `Credit_Age_Ratio` and encoded variables with ordinal/one-hot encoding.
- Derived target variable using a custom credit score based on FICO score mapping.
- Applied MinMax scaling to numerical features and trained a logistic regression model with good performance.
- Deployed an interactive Streamlit app for real-time predictions using saved model and scaler.

Case Study

Case Study: Data Science Job Market Analysis (SQL) **Aug 2024**

- Conducted a comprehensive analysis of global data science job trends using SQL, focusing on salary distribution, experience levels, and remote job availability, leading to insights that identified a 20% increase in remote job opportunities for entry-level roles.

TECHNICAL SKILLS

Programming Languages: JavaScript, Python
Development Stack: React, Flask, REST API .
Database Technologies: SQL, MySQL, Relational Databases
Machine Learning Deep Learning: ML algorithms, Deep Learning frameworks (TensorFlow, Keras), Image Processing, Feature Extraction, CNN, OpenCV
Data Science Libraries: Numpy, Pandas, Scikit-Learn, Matplotlib, Seaborn, Plotly
Devops: Docker,CI/CD, AWS cloud.
Tools & Interests: Computer Networks, Operating Systems, Streamlit, Jupyter Notebook,Git,, HTML CSS,**Data Structures & Algorithms**

CERTIFICATIONS and EXTRACURRICULAR:

- Google Tensorflow Developer Certificate **Expires on: April 2027**
- IBM PYTHON **Expires on: Lifetime**

Goldman Sachs Controllers Job Simulation on Forage **March 2025**

- Completed a job simulation involving financial analysis and reporting.
- Developed analytical skills through calculating Net Asset Valuation (NAV) and unitizing financial data.
- Utilized Excel for detailed financial analysis, data validation, and trend analysis, leading to accurate financial reporting and reconciliation.

Goldman Sachs Operations Job Simulation on Forage **March 2025**

- Completed a job simulation based on an Operations Analyst role at Goldman Sachs on Forage
- Analyzed financial data and identified issues in trade settlements and asset transfers for high net worth clients
- Collaborated with cross-functional teams, including Trading, Compliance, and IT, to resolve complex operational issues
- Applied best practices in operational risk management and regulatory compliance, demonstrating a strong understanding of the role's requirements.

BCG Data Science Job Simulation on Forage **March 2025**

- Completed a customer churn analysis simulation for XYZ Analytics, demonstrating advanced data analytics skills, identifying essential client data and outlining a strategic investigation approach.
- Conducted efficient data analysis using Python, including Pandas and NumPy. Employed data visualization techniques for insightful trend interpretation.
- Completed the engineering and optimization of a random forest model, achieving an 85% accuracy rate in predicting customer churn.
- Completed a concise executive summary for the Associate Director, delivering actionable insights for informed decision-making based on the analysis.