JOYCEE NIREEKSHANA SARELLA

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PROFESSIONAL SUMMARY

Driven by a passion for Data Science and Artificial Intelligence, I aim to excel in the data field by leveraging my expertise in Python, machine learning, data analysis, Generative AI, and API integrations. With practical experience in developing models, creating insightful visualizations, and deploying AI applications, I am committed to solving complex problems and delivering impactful, data-driven solutions.

EDUCATION

- **Bachelor of Technology** in ECE **JNTU-GV**, Vizianagaram, AP **CGPA: 8.5** 2020 — 2024
- **Intermediate** Tirumala Junior College Rajahmundry, AP **GPA: 9.9** 2018 — 2020
- **High School** Geetam School ,Kakinada, AP **GPA:10.0** 2017 — 2018

TECHNICAL SKILLS

- **Programming Languages :** Python, SQL
- **Data Analytics :** EDA, Data Cleaning, Data Visualization, Data Wrangling, Statistical Analysis, Hypothesis Testing
- **Machine Learning :** Supervised & Unsupervised Learnings, Data Preprocessing, Model Evaluation, Ensemble Methods, Feature Engineering, Performance metrics, Model Deployment
- **Deep Learning & Neural Networks :** ANNs, CNNs, RNNs, Fine Tuning, Regularization Techniques, Time Series Analysis, Image Classification, Video Processing, Web scrapping
- **Artificial Intelligence:** Generative AI, Reinforcement Learning, Computer Vision, LLMs
- **NLP :** Text Preprocessing, Word Embedding Techniques, Text Classification, NER
- **Big Data Technologies :** Apache Spark, Hadoop, CI/CD Pipelines, Docker, Kubernetes
- **API Integration:** RESTful APIs, Automation Scripts, Monitoring Tools
- **Cloud Technologies :** AWS, Azure

LIBRARIES & TOOLS

- **Libraries :** Pandas, NumPy, Matplotlib, Seaborn, Scikit-learn, NLTK, Spacy, Gensim, Pytorch, Pytesseract, OCR, Tensorflow, Keras, Transformers, BeautifulSoup, Scrapy
- **Tools :** Spyder, Anaconda, Streamlit, Jupyter Notebooks, Excel, MySQL, PyCharm, VS Code, Power BI, GitHub

PROJECTS

- **Customer Retention Predictor Using Machine Learning Models**

  Tools & Technologies: Python, Scikit-learn, Pandas, Matplotlib, Seaborn
  - Developed a machine learning model to predict customer churn using Logistic Regression, Random Forest, and SVM algorithms, achieving 85% accuracy.
  - Performed data preprocessing, feature engineering, and evaluated model performance with metrics like accuracy, precision, recall, and ROC-AUC.
- **Real-Time Object Detection with YOLOv8**

  Tools & Technologies: Python, Streamlit, OpenCV, YOLOv8, NumPy, Torch
  - Developed an interactive object detection app using YOLOv8 to identify and label objects in uploaded videos with adjustable confidence thresholds.
  - Integrated real-time video processing with adjustable confidence thresholds, dynamic bounding box visualizations, and performance tracking. Enhanced detection accuracy by 20% through optimized video processing and bounding box visualization.

- **Advanced Restaurant Review Sentiment Analysis and Visualization App**
  Tools & Technologies: Python, Scikit-learn, Pandas, Matplotlib, Seaborn
  - Developed an interactive web application using Streamlit to predict the sentiment (positive/negative) of restaurant reviews. Utilized advanced text preprocessing techniques such as stemming, stopword removal, and Bag of Words transformation for feature extraction.
  - Trained multiple classifiers (Decision Tree, SVM, Random Forest, AdaBoost), evaluated model performance with accuracy, bias, and variance metrics, and visualized results with word clouds, confusion matrix heatmaps, and review distribution charts.
- **Automated XML Data Scraping and Processing**
  Tools & Technologies: Python, BeautifulSoup, lxml, Pandas, JSON
  - Developed a Python-based solution to extract and parse structured data from XML files efficiently. Automated workflows for converting XML data into user-friendly formats like CSV and JSON.
  - Utilized libraries like lxml and BeautifulSoup for parsing complex XML structures, ensuring high data accuracy and consistency. Optimized the process to handle large-scale datasets, reducing extraction time by 30%, and enabling seamless data integration for downstream analysis.

EXPERIENCE

SANKHYA TECHNOLOGIES Dec '23 — Apr '24
Intern as Design Analyst | Autonomous Vehicle Design Visakhapatnam, India

- Developed algorithms for real-time object detection, image classification, and sensor fusion, enhancing vehicle perception capabilities.
- Analyzed and visualized sensor data (LIDAR, cameras, GPS), identifying patterns and predicting hazards, reducing false-positive detection rates by 15%.
- Collaborated with the engineering team to optimize energy management systems, improving battery efficiency by 12%.

COURSES AND CERTIFICATIONS

- Supervised Machine Learning: Regression and Classification, DeepLearning.AI, Stanford, Coursera
- Accenture North America Data Analytics and Visualization, Forage
- Python Programming, Coursera
- SQL, Hackerrank

ADDITIONAL ACTIVITIES

- **Class Representative (2 semesters):** Acted as the liaison for the ECE department at JNTU-GV, showcasing leadership and communication skills.
- **Event Coordinator:** Organized multiple B.Tech events, demonstrating strong organizational and management capabilities.
- **Leadership Roles:** Served as Head Girl and Captain of the LIV-ENG Club, highlighting effective leadership and coordination.
- **Achievements:** Actively participated in the National Science Congress, Rotary Club initiatives, and various school-level Olympiads, underscoring a commitment to academic and extracurricular excellence**.**

DECLARATION

I hereby declare that all the information provided in this resume is true and correct to the best of my knowledge and belief. I take full responsibility for the accuracy of the details mentioned.

S.Joycee Nireekshana