

SOWMYA

Data Scientist & Machine Learning Engineer

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PROFESSIONAL SUMMARY

Results-driven Data Scientist and Machine Learning Engineer with 3+ years of experience in developing and deploying AI-driven solutions. Expertise in Python programming, deep learning frameworks (TensorFlow, PyTorch), and cloud platforms (AWS, Azure). Proven track record of building end-to-end ML pipelines, implementing NLP solutions, and optimizing data processing workflows.

EDUCATION

- Master of Science in Computer Science***Kennesaw State University, Kennesaw, GA, USA*

Aug 2023 - Dec 2024
CGPA: 3.8/4.0

 - Specialized coursework in Advanced Machine Learning, Data Mining, Cloud Computing, and Statistical Analysis
 - Research focus on deep learning applications in natural language processing and computer vision
- Bachelor of Technology in Electronics and Communication Engineering***KL University, Guntur, India*

June 2017 - May 2021
CGPA: 3.6/4.0

 - Relevant coursework: Digital Signal Processing, Data Structures, Computer Networks, and Mathematical Foundations
 - Strong foundation in mathematical concepts essential for machine learning and statistical modeling

PROFESSIONAL EXPERIENCE

- Mainframe Developer***DXC Technology, Hyderabad, India*

Sep 2021 - Jul 2023

 - Developed and maintained enterprise-grade mainframe applications using COBOL for handling high-volume transaction processing systems
 - Designed and implemented automated data processing workflows for reducing manual intervention and minimizing human error in critical business operations
 - Collaborated with cross-functional teams including business analysts, system architects, and QA engineers to deliver system enhancements using Agile methodologies
- Python Developer (Freelance)***Python-Based Data Pipeline Automation*

Jan 2024 - Dec 2024

 - Architected and implemented automated data pipelines using Python, Pandas, and NumPy to process and transform large-scale datasets for machine learning model training and inference
 - Developed serverless data processing solutions using AWS Lambda and S3, improved scalability for real-time data ingestion
 - Integrate Boto3 for AWS resource management and automated deployment of data processing workflows using Infrastructure as Code principles
- Minor Degree in Python with Artificial Intelligence and Machine Learning***IIT Guwahati, Guwahati, India*

May 2025- Present

 - Comprehensive training in Python programming, machine learning algorithms, and AI implementation
 - Hands-on experience with supervised and unsupervised learning techniques, neural networks, and data analysis

MACHINE LEARNING PROJECTS

- AI-Powered Resume Screening System***Advanced NLP & Deep Learning Application*
 - Developed an intelligent resume screening system using Python, TensorFlow and advanced NLP techniques including BERT embeddings and transformer models
 - Built and trained deep learning models including LSTM, GRU, and attention-based architectures for multi-class classification of candidate profiles

- Achieved 85% accuracy in matching resumes to job descriptions with precision of 0.87 and recall of 0.83, reducing manual screening time by 60%

Fake News Detection System

NLP & Sequence Modeling

- Constructed a sophisticated fake news detection model using BERT transformer model, TF-IDF vectorization and sentiment analysis features
- Achieved 90% precision and 88% recall on test dataset, with robust performance across different news domains and sources
- Deployed the model as an interactive Streamlit web application with real-time news analysis capabilities and confidence scoring

Credit Card Fraud Detection System

Anomaly Detection & Classification

- Designed and implemented a real-time fraud detection system using ensemble methods including XGBoost, Random Forest, and Isolation Forest for anomaly detection
- Achieved 95% F1-score with 0.1% false positive rate through hyperparameter optimization using Bayesian optimization and cross-validation

House Price Prediction System

Regression Analysis & Feature Engineering

- Developed a comprehensive house price prediction model using Random Forest model
- Implemented advanced feature engineering including polynomial features, interaction terms, and geographical clustering analysis

RESEARCH & PUBLICATIONS

Sentimental Analysis on Social Media Comments using Deep Learning

2023

Published in International Journal of All Research & Scientific Methods - Research contribution in advanced NLP techniques for social media sentiment classification using deep learning architectures

TECHNICAL SKILLS

- **Programming Languages:** Python (Advanced), JavaScript (Intermediate), COBOL (Proficient)
- **ML Frameworks:** TensorFlow, PyTorch, scikit-learn, XGBoost, LightGBM
- **Deep Learning:** CNN, RNN, LSTM, GRU, Transformer Models, Attention Mechanisms
- **NLP:** NLTK, spaCy, BERT, GPT, Sentiment Analysis, NER
- **Computer Vision:** OpenCV, Image Processing, Object Recognition
- **Data Analytics:** Pandas, NumPy, SciPy, Matplotlib, Seaborn, Plotly
- **Web Frameworks:** Django, Flask, FastAPI, RESTful APIs
- **Cloud:** AWS, Azure, GCP
- **DevOps:** Docker, Kubernetes, Jenkins, Git, CI/CD
- **Databases:** MySQL, MongoDB, Redis, Apache Spark

PROFESSIONAL CERTIFICATIONS

Microsoft Azure Fundamentals (AZ-900)

2022

Validated expertise in Azure services, AI/ML solutions, and data analytics

AWS Certified Cloud Practitioner

2025

Demonstrated understanding of AWS cloud services, architecture design, security, and cost optimization

Python For Everybody Specialization

2025

Comprehensive Python programming certification including data structures, APIs, and data science applications

LEADERSHIP & EXTRACURRICULAR ACTIVITIES

- **Technical Event Organizer:** Led symposiums and coding events with 500+ participants
- **Hackathon Participant & Winner:** Multiple national-level AI/ML hackathons with top-3 finishes
- **Class Representative & Student Leader:** Organized study groups and mentored students