SREETEJA TUMMALA

+1 (414) 629-5310 | tsreeteja@gmail.com | sreetejatummala | Milwaukee, WI

Software Engineer with over 2+ years of experience in AI, machine learning, and data-driven problem-solving. Skilled in designing and deploying ML models, optimizing AI solutions, and working with cloud platforms like AWS and Azure. Strong background in deep learning, predictive analytics, and big data processing, with expertise in Python, TensorFlow, PyTorch, and Scikit-learn. Passionate about leveraging AI to build intelligent systems that drive business innovation and efficiency.

WORK EXPERIENCE

Graduate Assistant for Student Involvement January 2023 – May 2024
University of Wisconsin *Milwaukee, WI, USA*

- Boosted newsletter engagement by 35% using AI-driven readability enhancements via TextBlob, SpaCy, and GPT-3-based NLP models.
- Analyzed student activity trends using Scikit-learn, XGBoost, increasing event attendance by 15%.
- Compared newsletter/webpage metrics against successful competitors using ML models, enhancing engagement.
- Automated tasks using DeepSpeech (audio-to-text) and NLTK (keyword extraction), cutting manual work by 40%.
- Forecasted participation trends with Prophet, LSTM networks, aiding event planning.

Software Engineering Junior March 2022 – July 2022
Accurate Background *Irivine, CA, USA (Remote)*

- Built interactive dashboards with Tableau, MySQL Server for real-time KPI tracking.
- Helped with migrating database from MySQL Server to Snowflake.
- Used TabJolt to benchmark Tableau Server with MySQL and Snowflake, confirming Snowflake's better performance and 20% faster queries.
- Helped develop ETL pipelines for structured data ingestion, ensuring scalability.

PROJECTS

Network Attack Detection Using Machine Learning | *Python, Scikit-learn*

- Built an intrusion detection system (IDS) for cyberattack detection in SDN, reducing false positive rates by 15%..
- Compared ML models (KNN, SVM, Decision Tree, Random Forest) using NSL-KDD dataset, achieving highest accuracy with KNN.
- Optimized model via feature selection and preprocessing.

AI-Enhanced Clinical Decision Support Systems | *Python, AI Models*

- Integrated AI models into CDSS for better diagnostics.
- Assessed improvements via 1,000+ simulations, ensuring a 20% reduction in diagnostic errors..
- Built feedback loops to enhance model performance.

Face Mask Detection using Machine Learning | *Python, TensorFlow, OpenCV*

- Developed real-time face mask detection using SSD Multibox Detector and TensorFlow.
- Trained on Kaggle dataset, achieving 89% accuracy.
- Applied data augmentation, transfer learning for optimization.

Waste Management in Urban Localities | *IoT, Machine Learning*

- Designed a smart bin integrating IoT, ML, using a CNN-based model inspired by Xception with 87% accuracy for real-time classification of plastic, metal, and organic waste.
- Executed data-driven optimizations, suggesting new workflow for waste collection, possibly improving collection efficiency by 25%.
- Developed an end-to-end AI-powered system integrating cloud analytics.

Exploratory Research on Digital Sovereignty in Software Engineering | *Research, Analysis*

- Conducted extensive research on the challenges and opportunities of digital sovereignty in IoT and AI/ML-driven software engineering.
- Analyzed the impact of third-party libraries and cloud-based services on data security and privacy.
- Proposed solutions emphasizing modular and open-source design principles to enhance transparency, accountability, and resilience in software systems.

CERTIFICATIONS

Machine Learning with Python IBM
Key Technologies: Python, SciPy, scikit-learn, K-Nearest Neighbors (KNN), Logistic Regression

Deep Learning Indian Institute of Technology, Madaras, India
Key Technologies: Convolutional Neural Networks (CNN), Recurrent Neural Networks (RNN), Attention Mechanisms, Gradient Descent, Adam Optimizer

Deep Learning for Visual Computing Indian Institute of Technology, Kharagpur, India
Key Technologies: PyTorch, Convolutional Neural Networks (CNN), Autoencoders, Generative Adversarial Networks (GAN), Transfer Learning

Foundations of Data Science: K-means Clustering in Python University of London
Key Technologies: Python, K-means Clustering, Pandas, NumPy, Matplotlib, Statistical Analysis, Data Visualization.

Fundamentals of Linux and Data Analytics Vodafone Intelligent Solutions
Key Technologies: Python, Data Analysis, Pandas, Data Visualization, Linux System Administration

Building Serverless Application Amazon Web Services
Key Technologies: AWS Lambda, Amazon DynamoDB, Serverless Architecture, Cloud Computing, API Gateway

EDUCATION

University of Wisconsin | Master's in Computer Science September '22 – May '24 | Milwaukee, WI, USA
Relevant Coursework: *Machine Learning, Natural Language Processing, Big Data Analytics* *GPA 3.5/4*

Nitte Meenakshi Institute of Technology | B.E. Electronics & Communications August '18 – July '22 | Bengaluru, India
Relevant Coursework: *Data Science, Machine Learning, Artificial Neural Networks, Honors in IoT* *GPA 8.26/10*

TECHNICAL SKILLS

Programming: Python, SQL, Java, C++, R
ML & AI Frameworks: TensorFlow, PyTorch, Scikit-learn, OpenCV, Keras, XGBoost, LightGBM, FastAI, Hugging Face Transformers, CatBoost, MXNet, ONNX, NVIDIA TensorRT, JAX
Data & Cloud: Snowflake, AWS (S3, Lambda, SageMaker), Azure, Tableau
Big Data & Analytics: PySpark, Hadoop, Pandas, NumPy, Matplotlib
OS: Linux, Windows, MacOS

AWARDS

Kaleidoscope Award UWM Student Union

- Recognized for out-of-the-box thinking and unique problem-solving approach, contributing valuable insights and innovative ideas to the team.

Outstanding Graduate Student Award University of Wisconsin, Milwaukee

- Honored for academic excellence, leadership, community contributions, and exceptional achievements at UW-Milwaukee.