# TEJASWINI NANDU

689-250-9801 || t.nandu@ufl.edu ||LinkedIn||Github

## EXPERIENCE

**University of Florida |** *Stack: Machine Learning, Python, CUDA, XGBoost, GPN-MSA*                         **Gainesville, FL**
*Graduate Research Assistant and Student Mentor*                                                              **May 2023 – May 2024**
- Applied advanced machine learning techniques, including unsupervised learning and deep learning, to analyze complex non-coding DNA sequences, achieving 88.2% accuracy in genomic annotation
- Developed machine learning models with a focus on scalable architecture and robust design patterns.
- Utilized GPN-MSA transformer models and XGBoost, paralleling LLMs' methodologies, to refine predictive models and increase classification precision by 20%, demonstrating cutting-edge applications in ensemble learning and shrinkage methods

**Accenture |** *Stack: Java, Python, MySQL, Git, Software Development Life Cycle*                            **Hyderabad, India**
*Associate Software Engineer*                                                                                 **July 2021 – July 2022**
- Managed incidents for BMW project, achieving 95% compliance with SLA targets; led root cause analysis, identified key issues and implemented permanent solutions that decreased recurring issues by 50%.
- Utilized Git for version control and participated extensively in the full software development lifecycle.
- Developed and maintained software solutions using Java and Python, consistently applying best practices in programming and system design.

**Engineers Hub |** *Stack: Android Studio, Node.js, React, UI/UX, Git*                                       **Hyderabad, India**
*Mobile Application Development Intern*                                                                       **June 2019 - July 2019**
- Designed the concept and initiated the frontend design phase of the Hand Out mobile application, aimed at reducing food waste and supporting orphanages.
- Collaborated closely with the team to establish project milestones and deliverables.
- Analyzed industry-standard tools like Android Studio and version control systems like Git to facilitate efficient development processes.

## EDUCATION

**University of Florida**                                                                                     **Aug 2022 - May 2024**
*Master of Science, Electrical and Computer Engineering*
- *Relevant Courses : Fundamentals of Machine Learning, Parallel Computer Architecture, Neural Networks and Deep Learning, Agile Project Management, Computer Communications, IoT Security and Privacy.*

## SKILLS

**Programming:** C/C++, Python, R, SQL
**Data Analysis & Visualization:** Pandas, NumPy, SciPy, Power BI, Tableau, Matplotlib, Seaborn, Statistics, Excel
**Cloud Computing:** AWS (EC2, S3, SageMaker, Amplify, Lambda, Elastic Beanstalk)
**AI tools:** Supervised Learning, Unsupervised Learning, Scikit-Learn, XGBoost, OpenCV, TensorFlow, Pytorch, Keras, ANN, CNNs, RNNs, LSTM, GAN, Autoencoders, Transfer Learning
**Other Tools**: Linux/Unix, OpenCV, OpenMP, Scrum, Kanban, JIRA, GPU, OpenCL, Anaconda, Jupyterhub, CUDA, MATLAB

## PROJECTS

**Sentiment Analysis Using LSTM / GitHub /** *Python, TensorFlow/Keras, AWS SageMaker*
- Developed and deployed an LSTM-based sentiment analysis model using Python and TensorFlow in Jupyter Notebooks, specifically designed for text data classification of movie reviews.
- Achieved a high test accuracy of 96.32%, demonstrating the model's effectiveness. Utilized AWS SageMaker for training and deployment, which enhanced the model's efficiency and scalability, and improved data management.
- The project showcased my expertise in Natural Language Processing (NLP) and highlighted my ability to deploy cloud-based machine learning solutions, emphasizing my proficiency with cutting-edge technology in practical applications.

**Brand Logo Classification / GitHub /** *Python, Tensorflow, Jupyter, VGG16*
- Implemented a Convolutional Neural Network (CNN) classification system with transfer learning capabilities to categorize brand logos, accuracy was enhanced by 20% and shortened classification time by 60%
- Achieved an accuracy of 94.62% with VGG16 through hyperparameter tuning, including early stopping and the implementation of Adam optimizer.

**THE THIRD EYE / GitHub /** *Python, C++, VNC Viewer, Raspberry pi, OpenCV, Resnet50*
- Developed "The Third Eye," a Raspberry Pi-based smart cane for visually impaired individuals.
- Integrated voice-based assistance, object detection, and GPS technology to enable independent travel.
- Empowered users with real-time feedback, navigation guidance, and enhanced situational awareness.

**Prime Video Dashboard / GitHub /** *Power BI, Data Analysis*
- Designed and deployed an interactive Power BI dashboard to monitor and visualize Amazon Prime Video's content distribution, analyzing viewer demographics, content ratings, and genre trends.
- Enabled real-time data exploration and decision-making through advanced analytics, facilitating detailed user behavior insights and marketing strategies.

**Movie Recommendation System / GitHub /** *Python, TensorFlow/PyTorch, Streamlit*
- Engineered a dynamic Movie Recommendation System using Python and TensorFlow/PyTorch, achieving a 95% accuracy in predicting user preferences through collaborative and content-based filtering techniques.
- Developed and deployed an interactive web application using Streamlit, enabling real-time, user-friendly interactions that allowed users to receive personalized movie suggestions.

## Publications/Patents

- Invented THE THIRD EYE, an AI-powered assistive tool for the visually impaired, integrating Artificial Intelligence, IoT and deep learning methodologies (Indian Patent Office, 202141010185).