

Nidhil Nayudu

nnayudu@umich.edu | (908) 392-6515 | www.linkedin.com/in/nidhilynayudu

EDUCATION

University of Michigan College of Engineering - Ann Arbor, MI

May 2026

B.S.E, Major: Computer Science

GPA: 3.89/4.00

Honors: Dean's List 2x, University Honors 2x, William J. Branstrom Freshman Prize

Relevant Coursework: Data Structures & Algorithms (C++), Web Systems, Computer Organization, Intro to Prob & Stats

PROJECT EXPERIENCE

Michigan Data Science Team - Ann Arbor, MI

January 2024 - Present

Smart Stock Price Prediction - Project Lead

- Teaching 20+ peers on how to perform feature engineering on companies such as Alphabet Inc. (GOOG) stock datasets by identifying most relevant features using Pandas heatmaps and recognizing seasonal trends
- Guiding peers through Python's Tensorflow library to develop LSTM neural network architectures that predict stock prices using optimal features and utilizing Sentiment Analysis to integrate relevant news in stock's history
- Styling front end using React.js with tab directory to access predictions for each analyzed company

MHacks 16 Hackathon - Ann Arbor, MI

November 2023 - November 2023

AFK DJ - DevPost

- Pulled user's playlist from Spotify API to pause and play music based on the liveliness of their dancing
- Applied visual data from camera using Python's OpenCV library and landmarked body movements from Mediapipe to develop a neural network with LSTM layers to output either "dancing" or "not dancing"
- Integrated 10 second buffer from when the model indicates "not dancing," ensuring audience dislikes the song

Michigan Data Science Team - Ann Arbor, MI

September 2023 - November 2023

Next Word Prediction Model - Github - Website

- Preprocessed training dataset through Regex tools and used Python's NLTK to tokenize and pad data
- Developed several recurrent neural network architectures in Tensorflow using embedding, LSTM, and dense layers by utilizing early stopping and dropout techniques to minimize overfitting
- Identified small, limited dataset as error point after achieving at most 25% accuracy
- Updated model with Amazon reviews dataset (200 GB) and specialized Streamlit UI for messaging / web search

UM College of Engineering - Ann Arbor, MI

January 2023 - May 2023

Wind Farm Power Generation ML Model - Class Project

- Preprocessed data to better understand the relationship between inputs in order to produce a ML regression model to accurately predict wind power production for a fictional turbine farm
- Designed and trained Linear Regression, Random Forest (RF), and Neural Network models using the Python ecosystem upon feature optimization via correlation matrices and 5-fold cross validation
- Developed a RF model that produced an R^2 value of 0.972 improving upon their original accuracy of 0.93

WORK EXPERIENCE

UM Dept. of Computer Science & Eng. - Ann Arbor, MI

January 2023 - Present

Discrete Mathematics Grader

- Coordinate with instructors and colleagues to provide personalized feedback to direct 850+ students to succeed
- Initiate weekly staff discussions by highlighting unclear portions of homework rubrics and making revisions

Lowe's - Flemington, NJ

June 2023 - August 2023

Merchandising Service Associate

- Organized store merchandise to attract and assist 50+ customers daily by initiating conversations about store promotions and loading product into their vehicles while consistently addressing questions and concerns
- Maintained lawn and garden department while preserving efficient shopping experience and up-to-date prices

SKILLS

- Entry level experience in Python, C++, and Matlab softwares using VSCode and Git version control
- Bilingual in English, Telugu, and awarded the bilingual seal of literacy in French