DEXSON JOHN D'SOUZA

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EDUCATION

Master's of Science in Computer Science and Engineering, Expected February 2023
University at Buffalo, The State University of New York

- Algorithms Design and Analysis, Operating System, Machine Learning, Algorithms for Parallel and Distributed Systems, Project Development, Modern Networking Concepts.

Bachelor's of Engineering in Information Technology, May 2019
Mumbai University

- Object Oriented Programming(OOP), Software Engineering, Automata Theory, Data Mining, Soft Computing, Intelligent Systems, Image Processing, Computer Networks.

EXPERIENCE

Research Aide, The Research Foundation for The State University of New York, NY, September 2021 - Present

- Assisted Professor Scott to create an iso-map of metalloids using Matlab9.1.
- Implemented a functionality to develop rankings of 10 metallic elements for a variety of randomly generated inputs.
- Generated correlations of elements with respect to Yield Strength and Ductility of 350 metalloids.
- Created scatter plots and line graphs to show % increase in YS and Ductility of each metal in different temperature range(below and above 800 degree celsius).

Software Developer, Infinite Computing Systems, Mumbai, July 2019 - July 2021

- Collaborated with a team of 5 members to build a Leave and Attendance system using Angular and Node Js.
- Created several modules in a Mobile CRM application using Ionic and SQLite with a team of 10.
- Managed a Career portal web application and executed several functionalities.
- Remodeled queries to reduce execution time from an hour to 10 to15 minutes.
- Designed and formulated a robust and strong backend scripting to design Dynamic forms using Javascript, SQLite and Ionic 5.
- Developed a micro service for authentication of users and to maintain 60 min session of users.
- Introduced a new option for tracking and locating 100's of work orders using Bing Maps.
- Analyzed requirement gathering, participated in testing and UI improvement.

PROJECT

Stock Market Trading using Deep Reinforcement Learning, November 2021 - December 2021

- Constructed a Model leveraging Reinforcement Learning techniques to perform trading on nvidia-2016.1 data.
- Formulated an environment to perform Q-learning consisting of 4 states and 3 steps required for Q-learning.
- Designed an RL agent to study trends and patterns in data and devise a trading strategy to increase it's account value by 40%.

Diabetes Prediction using Machine Learning, August 2021 - October 2021

- Implemented logistic regression from scratch. 77% accuracy was obtained using optimal hyper-parameters.
- Devised a Neural Network with 3 hidden layers with L2 and L1 regularization.
- Trained model with 50000 data samples. 82% accuracy was achieved.

Classical Music classification, January 2019 - April 2019

- Constructed a ML model to identify 4 different genres of classical music.
- Preprocessed and cleaned data for reducing inconsistency, incompleteness and errors in input data consisting of 300 audio files.
- Deployed RNN algorithm to train model and achieve 89% accuracy.

CERTIFICATIONS

- Building Modern Python Applications on AWS provided by Amazon Web Services.
- Data Visualization by University of Illinois Urbana-Champaign.
- Distributed Computing with Spark SQL by UC Davis.