DEXSON JOHN D'SOUZA

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SUMMER INTERNSHIP

TECHNICAL SKILLS

Languages/Frameworks: Python, C++(Programming), JavaScript, SQL, Node Js, Angular JS, Kernel level programming.
Cloud: AWS (EC2, S3, Lambda, Gateway).
Databases: MySQL
Tools/Library: Git version control, AWS, TensorFlow, Azure , Keras, Matplotlib.
Operating Systems: Windows, Linux

WORK EXPERIENCE

Software Developer, Infinite Computing Systems Pvt. Ltd, Mumbai, India. **July 2019 - July 2021**

- Collaborated with a team to create a Leave and Attendance system using Angular and Node Js.
- Built APIs to push changed data from source system to database.
- Designed and formulated a robust and strong backend scripting to create Dynamic forms.
- Developed a micro service for authentication of users and to maintain session of users.
- Engaged other team members in designing and building features and resolving issue.
- Conducted customization of Software modules as per client requirements using Javascript, Node Js, SQL and Angular.
- Performed communication and interaction with clients in solving complex technical problems.
- Managed software testing and submitted reports on updates and bug fixes.

PROJECTS

Stock Market Trading using Deep Reinforcement Learning

- Developed a Model using Reinforcement Learning techniques to perform trading.
- Designed an environment, states and steps required for Q-learning algorithm.
- The RL agent was able to learn trends and patterns in data and develop a trading strategy to maximise it's account value.

Pintos Operating System

- Designed Priority Scheduling and Priority Donation strategy for threads in kernel.
- Constructed M.L.F.Q.S. algorithm to prevent starvation of threads.
- Structured locks and semaphores to maintain synchronization and prevent race condition.
- Implemented System calls and Process management to execute User programs.

Classical Music classification

- Built a ML model to identify different genres of classical music.
- Preprocessed and cleaned data for reducing inconsistency, incompleteness and errors in data.
- Classified music using different algorithms such as K-Nearest Neighbor, Random Forest, Support Vector Machine and Recurrent Neural Network. Model was able to achieve 89% accuracy using RNN algorithm.

Diabetes Prediction using Machine Learning

- Implemented logistic regression from scratch. 77% accuracy was obtained using optimal hyper-parameters.
- Created a Neural Network with 3 hidden layers with sigmoid activation along with L2 and L1 regularization.
- Agent was able to make prediction with 82 % accuracy.

EDUCATION

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

Courses Taken: Algorithms Design and Analysis, Operating System, Machine Learning, Algorithms for Parallel and Distributed Systems.

Bachelor's of Engineering in Information Technology, May 2019**.** ***Mumbai University, Mumbai, Maharashtra, India***.

Courses Taken: Object Oriented Programming, Software Engineering, Automata Theory, Data Mining, Soft Computing, Intelligent Systems, Image Processing, Computer Networks, Computer Graphics.

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.