Dhanush Kumar Reddy Yarragonda

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EDUCATION

UNIVERSITYATBUFFALO | MASTER OF SCIENCE IN COMPUTER SCIENCE
Aug 2022 – Jan 2024 | Buffalo, NY

VELLORE INSTITUTE OF TECHNOLOGY | BACHELOR'S IN ELECTRONICS AND COMMUNICATION ENGINEERING
Aug 2018 – May 2022 | Vellore, India

EXPERIENCE

SIRI SOLUTIONS INC | SOFTWARE DEVELOPER

Dec 2024– Mar 2025 | Sterling, VA

- Developed and maintained backend modules using Python, improved performance and reliability.
- Created automation scripts to streamline daily tasks , reducing manual workload for the team
- Integrated third-party RESTAPI's using Python , enhancing application functionality

SACRO | PYTHON DEVELOPER INTERN

Jan 2024– Nov 2024 | Fremont, CA

- Wrote Python scripts to support internal tools for data processing and reporting
- Improved test coverage by writing unit tests for existing Python code.
- AssistedindebuggingandoptimizingPythoncode,helpingreduceruntimeerrors.

PROJECTS

EMOTION RECOGNITION FROM FACIAL EXPRESSIONS | May 2023

- CollaboratedwithateamtoTrainadeeplearningmodeltorecognizehumanemotions based on facial expressions. This can be used in a range of applications from user interface design to mental health monitoring
- EvaluationofsixdistinctmodelsincludingBasicCNN,SimpleResNet,Variationof GoogleNet, UNet (Encoder and Decoder), NewNet, and RogleNet.
- Implementationofinnovativetechniquessuchasdataaugmentation,weighted cross-entropy loss, and optimization algorithms like SGD and Adam for enhanced model performance

DEEP REINFORCEMENT ALGORITHMS (PYTHON, NEURAL NETWORKS) | December 2022

- Implemented Deep Q-Networks (DQN), Double DQN (DDQN), Actor Critic, Advantage Actor Critic Algorithms to solve custom multiAgent environments such as Tic-Tac-Toe, Rock Paper Scissors and Switch Game.
- Built a custom model using innovative techniques like experience relay methods, enhancing performance of existing algorithm, achieving over 92% accuracy.

TECHNICAL SKILLS

LANGUAGES
- Python (Core, OOPs, Scripting)
- SQL

DEVELOPERTOOLS
- VS Code • Eclipse
- GoogleCloudPlatform
- Android Studio

TECHNOLOGIES/ FRAMEWORKS
- Flask
- Django (basic)

COURSEWORK

- Reinforcment Learning
- Data Structures
- Algorithms
- Data Structures
- Data Intensive computing
- Machine Learning
- Deep Learning

LEADERSHIP & EXTRACURRICULAR

CAMPUS DINING AND SHOPS |

STUDENT LEADER

Aug 2020 - May 2022 | Buffalo, NY

- Assistedacademicand administrative staff by coordinating schedules, organizing documentation, and supporting day-to-day operations
- Regularly engaged withprofessors and department managers to help manage events, meetings, and student communications, improving team efficiency