THILAK REDDY DHARAM

Buffalo, NY | +1 716 256-7394 | thilakre@buffalo.edu | ThilakReddy |
LinkedIn | Github

EDUCATION

UNIVERSITY AT BUFFALO, SUNY — Buffalo, NY
Master of Science — Expected Dec 2023
Major in Computer Science;
Cumulative GPA: 3.45/4.0.
Relevant Coursework: Analysis of Algorithms, Information Retrieval, Machine Learning, Pattern Recognition, Data Intensive Computing, Reinforcement Learning, Deep Learning, Data Models and Query Languages.

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY — Hyderabad, Telangana, INDIA
Bachelor of Technology — Jul 2017 - Jul 2021
Major in Computer Science;
Cumulative GPA: 8.1/10.0.

TECHNICAL SKILLS

Languages/Databases/Web Technologies: Python, JavaScript/TypeScript, C/C++/C#, java, R, SQL, Go, HTML5/CSS3, React.js, Express.js, Dart, Node.js, REST, SOAP, MongoDB, MySQL, Postgres, GraphQL.
Tools and Frameworks: Tableau, Numpy, pandas, Matplotlib, TensorFlow, OpenCV, Visual Studio, Unix/Linux, Android Studio, Flask, Jupyter Notebook, Flutter, Django, Git/GitHub, System Design, AWS, Unit Testing, Debugging, Telerik JustMock.

WORK EXPERIENCE

HEXAGON CAPABILITY CENTER INDIA PVT. LTD, HYDERABAD — INDIA
Software Developer — Jul 2021–Aug 2022
- Optimized the Intergraph Smart3D application search engine, integrating advanced indexing, caching, and UI/UX enhancements leading to 70% user engagement and a reduction in customer complaints by 10%.
- Conceived and developed WPF pages tailored for custom commands as part of the core application, enhancing the user experience for over 50,000 customers, which led to a 25% increase in user engagement and praise for intuitive design during feedback sessions.
- Migrated and integrated 3D objects, ensuring seamless accessibility and consistent user experience on cross-platform devices.
- Led a team of 4 to author comprehensive unit tests for over 5 microservices, resulting in a 20% reduction in product defects and a 15% improvement in deployment efficiency.

EXPOSYS DATA LABS, HYDERABAD — INDIA
Software Development Intern — Apr 2021–Jun 2021
- Optimized workflow by implementing a user-friendly and responsive design for a Video chat Web-App using Flask along with Bootstrap for frontend, leading to a 30% reduction in user onboarding time and a 20% increase in customer satisfaction ratings.
- Implemented virtual backgrounds with OpenCV, integrated OAuth via Flask-OAuthlib for authentication, and added screen recording capabilities using PyGetWindow, achieving a 75% surge in user engagement.
- Leveraged WebRTC and Socket.io with Flask to improve seamless call efficiency by 80% during group calls with participants.

UNIVERSITY PROJECTS

DEEP REINFORCEMENT ALGORITHMS (PYTHON, NEURAL NETWORKS) — May 2023
- Implemented Deep Q-Networks (DQN), Double DQN (DDQN), Actor Critic, Advantage Actor Critic Algorithms to solve custom multi-Agent 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.

SONARSCORE: ADVANCED MUSIC TREND FORECASTING (PYTHON, FLASK, MACHINE LEARNING) — Jan 2023
- Orchestrated application of diverse Machine Learning algorithms, encompassing regression, clustering, and classification techniques, to prognosticate song popularity.
- Designed and composed an interactive Web-App using Flask and HTML/CSS for users to play with custom input features such as Energy, Loudness, and Acousticness, aiding in predicting song's popularity gaining an accuracy over 88%.

CHATBOT SEARCH SYSTEM FOR REDDIT (PYTHON, APACHE SOLR, GOOGLE CLOUD (EC2, S3)) — Dec 2022
- Collaborated with a team to develop a search system using Reddit's REST API data; indexed in SOLR using BM25 and Language models, enhancing result accuracy.
- Designed a custom Dismax Parser plugin translated queries in multiple languages and boosted relevant results using NLP.
- Implemented a Naive Bayes classifier to differentiate between search results and generic queries utilizing bag of words and TF-IDF features, achieving 85% classification accuracy on a test data set.
- Co-led the deployment of a Flask-based chatbot interface on a cloud platform, resulting in a 7% improvement in MAP score through collective feedback.