Dartmouth, MA **NANDINI LOKESH REDDY** lreddynandini@gmail.com
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EDUCATION

University of Massachusetts Dartmouth, Dartmouth MA. **August 2024**
Master of Computer Science *- 3.87 GPA*

- American Statistical Association Data Fest - 1st Position for Best Visualization.
- Queensland Three Minute Thesis Competition – 1st Position

Visveswaraya Technology University, Bengaluru, KA, India. **August 2022**
Bachelor of Computer Science and Engineering *- 8.97 GPA*

- Academic Excellence Award
- Inter College Best Project – 2nd Position (e-voting system)

SKILLS

Languages: Python, C, Swift, HTML, CSS, d3.js
Databases & Devekoper Tools: MySQL, AWS S3, MongoDB, Git, Xcode, Roboflow, Docker, Azure
Frameworks/Libraries: Pandas, MATLAB, Tensorflow, Pytorch, Keras, Numpy, Flask, Computer Vision, Scipy, Scikit-learn, Tableau, Power-BI.

EXPERIENCE

Keeper AI, New York, New York

Data Science Intern May – July 2023

- Developed recommendation system for personality profiles, connecting individuals with similar interests and enhancing colleague understanding for effective collaboration.
- Improved recommendation system accuracy by 5% through model tuning based on personality attributes, resulting in more precise profile matching and stronger connections.
- Implemented innovative features including Personality Graph, Colour Banner, and Values & Mission Graph, fostering comprehensive profile understanding and alignment with organizational values.

University of Massachusetts Dartmouth, Dartmouth MA

Research Assistant *– Funded by US Fisheries & Wildlife Department and Lockheed Martin* Sep 2023 – Present

- Leading efforts in optimizing Fish Discard Chute with efficient OpenCV and deep learning models.
- Working on fully automated model using Transformers in predicting length and type of fish.
- Developing size measurement algorithms and an accompanying mobile app for enhanced accuracy and user-friendliness.

Marketing Analyst Intern Feb 2023 – Present

- Innovated technology review process, providing comprehensive evaluations of university research projects for potential commercialization and patent filing.
- Facilitated technology licensing by collaborating with companies, negotiating licensing agreements, and leveraging market insights for optimal technology transfer.

Teaching Assistant Jan – May 2023

- Taught undergraduate students Turing Machine and Finite Automata concepts as a Teaching Assistant for the "Models of Computation" course, ensuring a solid understanding of fundamental computational models.
- Assisted in structuring the course by collaborating with the instructor, designing coursework, and organizing assignments, quizzes, and exams for a comprehensive learning experience.

ACADEMIC & PERSONAL PROJECTS

Phishing URL Detection – *Python, REST API, Beautiful Soup, MATLAB, and Machine Learning* Aug 2021

- Leveraged machine learning algorithms and Python packages to achieve 98% accuracy in detecting false URLs. Applied various techniques to enhance accuracy and developed robust models for identifying phishing attempts.

Translating Languages with AI – *Python, Recurrent Neural Networks, Django, and Streamlit* Apr 2023

- Utilized recurrent neural networks (RNN) and LSTM models to develop a language translation system. Hyper-tuned the model using a vast dataset of 1.4 million samples, resulting in highly accurate translations across multiple languages.

Stable Diffusion Model for HealthCare – *Python, Probabilistic Machine Learning* Jan - Oct 2023

- Led the implementation of an innovative model utilizing probabilistic machine learning techniques. Applied this advanced approach to enhance disease prediction accuracy by leveraging limited datasets, leading to significant advancements in healthcare practices.

Text Summarization – *Python, LLaMA model, BERT Tokenization* June - Dec 2023

- By leveraging the power of BERT's language understanding capabilities, LLaMA efficiently generates concise summaries of lengthy documents, improving document comprehension and efficiency. Its integration of advanced natural language processing techniques makes it a valuable tool for extracting key information from complex texts.

Fish Discard Chute – *Python, Yolo-V8, Segment Anything Model, OpenCV, Transformers* Sep - Jan 2024

- Led a pioneering project on a Fish Discard Chute at UMass Dartmouth, utilizing YOLOv8 for precise fish classification from a comprehensive dataset. Implemented a 'Segment Anything' model for accurate fish masking in images, enabling length measurement. Enhanced size determination using advanced image processing techniques and OpenCV algorithms for robust and precise analytics.

Medical Chatbot – *Llama-2, AutoGPTQ, Langchain* May – June 2024

- Developed a Medical Chatbot using the Llama-2 model, fine-tuned with a comprehensive medical textbook via the AutoGPTQ framework on the Hugging Face platform, and integrated LangChain for efficient query handling and precise information retrieval.

Fish Classification – *Swin Transformers, Pytorch CNN, Prompt Engineering, Vision Transformers* April – May 2024

- Developed an end-to-end model to classify six types of fish from a conveyor belt. Implemented and tested various classification models, including Swin transformers and PyTorch CNNs. Enhanced classification accuracy by incorporating binary images generated by the Segment Anything model along with fish length as prompts, enabling better performance with vision transformers.