

SREE DHYUTI NIMMAGADDA

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INTERESTS

Data Structures and Algorithms, Machine Learning, Deep Learning Architectures, NLP, CV, Cloud Services, Optimization, AI Ethics

EDUCATION

Northwestern University

Master's, Artificial Intelligence.

Evanston, IL, USA

Sep 2024 - present

Indian Institute of Information Technology, Design and Manufacturing, Kancheepuram

M.Tech + B.Tech (Integrated Degree), Computer Science Engineering. CGPA: 8.86/10.00

Chennai, India

Jul 2019 - May 2024

CONFERENCE PUBLICATIONS & OTHER ACHIEVEMENTS

- **Conference Paper IEEE Region 10 (TENCON 2024): Nimmagadda Sree Dhyuti, Mercy Faustina, B.Sivaselvan "Improved Text Summarization with RL-Enabled PEGASUS and Siamese Network Evaluation" - Singapore 2024**
- **In the top 45 global finalists out of 1500 teams, of the OpenCV AI Competition 2022** **2022**

SKILLS

- **Programming Languages:** Python, C, C++, R, Verilog, NASM
- **Machine Learning Frameworks:** TensorFlow, PyTorch, Scikit-learn, Keras
- **Hardware and Optimization:** CUDA, OpenMP, MPI, NVIDIA DeepStream, AWS Neuron, TensorRT, TPUs.
- **Cloud Platforms:** AWS, Google Cloud, Microsoft Azure
- **DevOps/Tools:** Docker, Git, FastAPI, Flask, Jupyter Notebook, CI/CD, VS Code, Anaconda, SQL, Multisim, Keil, Arduino
- **Presentation tools:** LaTeX, Microsoft Office tools, Tableau, Canva, Markdown

EXPERIENCE

- **Machine Learning Research Intern** *May 2023 - Oct 2023*
IIT Madras - BioSystems Engineering and Control Lab Chennai, India
 - Developed a regression model on NIR Spectroscopy data for the Brix degree prediction in apples with an R2-Score of 0.4
 - Built a semi-supervised learning based regression model for monitoring of *Lactococcus lactis* fermentation, resulting in 80% better performance
 - Identified major discrepancies in the data collection process using T^2 Hypothesis testing
 - Technologies Used: Python . Machine Learning . Statistical Analysis . NIR Spectroscopy . Research Documentation
- **AI Intern** *Feb 2023 - Apr 2023*
SecurAise Technologies Pvt Ltd Bangalore, India
 - Implemented and optimized multi-modal YOLOv7 object detection algorithm using NVIDIA DeepStream AI Toolkit for detecting vehicles in a parking lot surveillance system
 - Led performance optimization and data curation using C++ and NVIDIA DeepStream AI Toolkit
 - Achieved a vehicle detection accuracy of 96%
 - Technologies Used: Python . NVIDIA . Deepstream AI Toolkit . Computer Vision . C++
- **Machine Learning Intern** *Aug 2022 - Dec 2022*
Tiny Banyan Technologies Pvt Ltd Chennai, India
 - Pioneered detection of pot-holes and cracks on roads using YOLOv5 Algorithm
 - Set up and administered Google Cloud Platform for application testing with various road datasets
 - Trained new interns in ML deployment and model optimization.
 - Technologies Used: Python . Flask . Google Cloud Platform . Computer Vision
- **Theoretical Research Intern** *May 2021 - Jul 2021*
IIITDM Kancheepuram Chennai, India
 - Devised new non-deterministic polynomial complete algorithms for tracing the Steiner trees in Interval and Halin graphs under guidance of Dr. Sadagopan N
 - Conducted comprehensive analysis on split, interval, and chordal graphs in various cases
 - Skills Used: Algorithm Analysis . Graph Theory . Literature Review

PROJECTS

- **Drugs: Side Effects and Medical Conditions Analysis**
Analyzed a pharmaceutical dataset, uncovering drug-condition-side effect links with 15% improved insights.
- **Human Artery-Vein Classification with U-Nets**
Built a U-Net deep learning model to classify artery and vein segments, achieving 92% accuracy.
- **Social Distancing Monitor**
Created a custom object detection model using HOG descriptors to track social distancing compliance in video footage.