

HARISH REDDY THALLA

(+91)8096334597 • harishreddythalla@gmail.com • [linkedin.com/in/harishreddythalla/](https://www.linkedin.com/in/harishreddythalla/)

EDUCATION:

National Institute of Technology Warangal

Warangal, India | 2017 - 2021

B.Tech in Mechanical Engineering - CGPA: 7.5/10 | CS Courses CGPA: 8.18/10

PROFESSIONAL EXPERIENCE:

Data Scientist - Standard Chartered Bank

Jul 2021 - Present

- Developing generative conversational chatbot using encoder-decoder LSTM models to aid with banking queries
- Increased customer interactions by over 18% by deploying & maintaining the chatbot framework for domain specific reusability.

Robotics & AI Engineering Intern - [Aufenbach](#)

Sep 2018 - Aug 2020

- [Project Armatus](#): Enhanced gaming experience by developing an ML powered VR setup & [omnidirectional treadmill](#) using Human Activity Recognition model built on CNN-GRU architectures to map IMU sensor activities to VR environment.
- [Self-charging peripherals](#): Achieved self-powered computer peripherals by designing electromagnetic energy harvesting mechanisms

Machine Learning Summer Intern - [Balnc Care](#)

June - Sept 2019

- Built a 200k basketball activity image dataset by designing a Human Pose Estimation model using stacked conv-deconv framework.
- Developed a basketball activity classification model using KNNs, TPOT and CNN-LSTMs for intelligent scene analysis.

Research Intern | Machine Learning Applications on Image Processing | NIT Warangal

May - Jul 2019

(Advised by [Prof. J Ravi Kumar](#))

- Provided Research Assistantship on multi-feature fusion architecture using HOG & VGG-Face for facial expression classification.
- Gave 3 seminars to 40 freshmen students on engineering applications of optimization techniques.

Machine Learning Research Internship | NIT Warangal

Jan - May 2019

(Advised by [Prof. Hari Kumar Voruganti](#))

- Stress Analysis using CNNs**: Reduced stress analysis computation time from 6 minutes to 1 second with 0.32% mean relative error using CNNs and squeeze-excitation architectures like SE-ResNet that produce approximated stress fields for cantilevered structures.

Mentor, Educator- Unacademy Tutored Mathematics & Physics for class XI and XII JEE aspirants

Feb - May 2018

PROJECTS:

Optimization of Welding parameters using GA and PSO algorithms | NIT Warangal

July 2020- June 2021

(Undergraduate Thesis, Advised by [Prof. Hari Kumar Voruganti](#))

- Improved weld strength & removed unnecessary distortions of Arc welding by optimizing control variables using Genetic and Particle Swarm Optimization Algorithms.

Robocon International Competition | Undergrad Robotics Research Association

July 2019- June 2020

- Designed and fabricated 2 autonomous robots that collaboratively perform complex tasks on Rugby balls.
- Executed Motion planning & path planning with grid & sampling-based algorithms. Implemented object tracking using R-CNNs and DeepSort Techniques to actuate Robot's pneumatic system.

PATENTS:

- System for Harvesting Electrical Energy Generated from Mechanical Energy | **Application No** : 202041057250 | **Status** : Published

PUBLICATIONS:

- Self-charging Peripherals with inbuilt Power Harvesting System

Conference: ICMSMT2020 | **Published in** : IOP Conference Series | **DOI** : [10.1088/1757-899X/872/1/012036](https://doi.org/10.1088/1757-899X/872/1/012036)

SKILLS:

Artificial Intelligence | Programming | C++ | Python | Matlab | Tensorflow | Computer Vision | RNNs | GANs | Project Management

COURSES & CERTIFICATIONS:

- [Robotics: Vision Intelligence and Machine Learning](#) | University of Pennsylvania | EdX Audit
- [Machine Learning A-Z: Hands-On Python In Data Science](#) | Udemy
- [CS231N- Convolutional Networks](#) | Stanford University | Youtube | Audit
- [Machine Learning](#) | Coursera | Andrew Ng
- [Neural Networks and Deep Learning](#) | Coursera | Andrew Ng
- [Data Structures and Algorithms](#) | GeeksforGeeks

EXTRACURRICULAR ACTIVITIES:

- Co-Founder - Phasors, startup aiming to provide free education to underprivileged students.
- Founder, Team Lead- Undergrad Robotics Research Association, NITW
- Joint Secretary- Mechanical Engineering Association, NITW
- Event Manager (IPL Auction) & Subcore - Technozion 2018 & 2019 (South India's biggest technical fest)

ACHIEVEMENTS:

- State 3rd Mark in Class XI Board examinations (Telangana | 2016)
- 1st in [Innovation Garage](#) Ideathon (NIT Warangal | 2018)
- 2nd in [Innovation Garage](#) Makeathon (NIT Warangal | 2019)