# Tarun Sri Sai Vadlapatla

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## **EDUCATION**

#### Gokaraju Rangaraju Institute of Engineering and Technology

Bachelor of Technology in Computer Science and Business Systems (CGPA of 8.7)

Hyderabad, Telangana 2020 - Present

#### **PROJECTS**

Real Estate Price Predictor | Python(pandas, numpy, scikit-learn), Angular, Bootstrap, Docker

2023

- Developed a Python and Angular price predictor web application that can predict the price of a plot in the range of 10 lacs to 65 crores in the metropolitan cities of Mumbai and Hyderabad.
- The real estate dataset consists of 9000 plot listings, requiring a comprehensive preprocessing of the data and a refined division of training and testing datasets.

Language Detector | Python(pandas, numpy), Angular, Bootstrap, Docker

2023

- Crafted a Python and Angular language detection web application that can be used to predict the language of the text up to 2000 characters in a wide variety of languages.
- The training corpus consists of 13000 sentences in over 100 languages, which are tokenised and fed into a Markov 3-gram model written from scratch.

## Motorcycle Crash Detection and Alert System | Arduino, Kodular, ESP-32, Firebase

2022

- Devised a Motorcycle Crash Detection System utilizing an MPU 6050 accelerometer sensor in conjunction with the ESP-32 microcontroller to predict a motorcycle crash and send an alert to the emergency contacts.
- The application relies on the Firebase database, which sends the position status, calculated in 3 axes, to the smartphone app written with Kodular, which will acknowledge the crash and relay information for up to 3 emergency contacts.

#### CERTIFICATIONS

#### An Introduction to Artificial Intelligence | NPTEL

2023

- Earned a certificate in artificial intelligence, taught over 12 weeks and comprising of 25 topics from AI history to Deep Reinforcement Learning.
- Demonstrated proficiency in the NPTEL-proctored written examination by achieving an aggregate score of 47%.

#### Linux | IITB Spoken Tutorials

2023

- Attained a certification through IIT Bombay Spoken Tutorials, involving Linux Operating System, file system and terminal commands.
- Participated in the corresponding 2-hour offline proctored exam, and secured a commendable aggregate score of 72.22%.

# Publications

# A Performance Analysis on A\* vs Depth Limited Search: A Case Study | E3S Web of Conferences

2023

- Authored a research paper that conducted a comprehensive analysis of the operational efficiency of 2 popular AI search algorithms in 3 different graphs.
- Employed the Python programming language as the primary tool for experimentation and evaluation of the graphs with 5, 13, and 26 nodes respectively.

#### Motorcycle Crash Detection and Alert System using IoT | E3S Web of Conferences

2023

- Prepared a research paper on the Motorcycle Crash Detection and Alert System academic project involving 3 functional components.
- The project used the ESP-32 microcontroller paired with the MPU6050 accelerometer to detect crashes and alert up to 3 emergency contacts upon a crash.

## Profile Links

# TECHNICAL SKILLS

- https://hackerrank.com/tarunsrisaiv03
- https://codechef.com/users/tarunsrisaiv03
- https://codeforces.com/profile/tarunsrisaiv03
- https://leetcode.com/tarunsrisaiv03
- https://interviewbit.com/profile/tarunsrisaiv03

Java, Python, C/C++, JavaScript, HTML/CSS, R, Angular, Node.js, Git, VS Code, Jupyter Notebook, Google Colaboratory, Pandas, NumPy, Matplotlib, Scikit-learn, Docker