

# Oruganti shiva charan

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## Education

<b>Vellore institute of technology, Vellore</b> Bachelors of Technology in computer science and engineering	<b>July 2019 - May 2023</b>
<b>Relevant Coursework:</b> Mentioned in the transcripts	
<b>Vision 40, Gynavapy junior college, Hyderabad, India – High school</b>	<b>June 2017- May 2019</b>
<b>Relevant Coursework:</b> Organic Chemistry, Physical Chemistry, Inorganic Chemistry, Physics (Mechanical and Electricity & Magnetism), Calculus I & II, Algebra, statistics, and probability.	
<b>Secondary board of education, Telangana</b>	<b>June 2016 - May 2017</b>

## ACADEMIC RESEARCH AND PROJECTS

<b>Vellore institute of technology</b> Mosquito detection and classification using reinforcement learning methods	<b>Vellore</b> November 2021 -
Ongoing research in which I build an IoT model to collect data for the experimental architecture that I proposed using reinforcement learning methods. Implemented using MQTT, HTTPS protocols, a combination of model-free and model-based methods from RL, and sensors(temperature and humidity) with a microcontroller. Right now collecting data to test the system.	
<b>Vellore institute of technology</b> A Reinforcement Learning Agent; Evaluates the Companies' Data Privacy Policy for Users	<b>Vellore</b> August 2021 -December 2021
Implemented an agent to support users on their privacy decisions using various reinforcement learning and deep learning techniques with a custom-made loss function. Achieved impressive feedback from test users. More information on my Github. Yet to be published.	
<b>Vellore institute of technology</b> Automatic control with movement sense	<b>Vellore</b> August 2021- December 2021
Implemented a system that detects motion and sends commands to the user PC to automate actions on pc which user desires. Used ARM assembly language to program the server for efficient and fast response time. The edge device is integrated with vibration sensors and a microcontroller.	
<b>Vellore institute of technology</b> Realized Volatility Prediction	<b>Vellore</b> June 2021 - August 2021
Implemented different deep learning networks(RNN, CNN, ANN) and machine learning(SVM, Xgboost) algorithms for the data given by Optiver company as an open challenge(Kaggle). Feature engineering was done on data before loading it into the models. Achieved RMSE value of 27.00 measured on unknown test data by the Kaggle. Currently being tested on real market data from October 2021 to January 2022 for the final leaderboard.	
<b>Vellore institute of technology</b> Analysis of NYC metro stations network	<b>Vellore</b> February 2021 - June 2021
Analyzed every station in the NYC metro using different geographic and community factors near the station. Applied graph measures to the network, identifying station groups with relatively high network criticality and relatively low node-place-design score and the correlation between them. Analysis was made public for users to navigate and the policymakers to derive better policies for the metro.	

## Leadership Experience and Volunteer Work

<b>Isha Foundation</b> Inner Engineering, Program volunteer	<b>Tamil Nadu</b> 25th December 2020 - 31 st December 2020
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## Skills

Programing languages: Python, R, C/C++, Matlab, ARM assembly, Arduino programming language  
Frameworks: Tensorflow, PyTorch, Jax  
Languages: English(Fluent), Telugu(Native Speaker), Hindi, French(Conversational)

## Certifications

**Relevant Certifications:**  
CS50 by David J.Malan(Harvard University), Deep Learning Specialization by Andrew ng, Reinforcement learning Specialization by the University of Alberta, Alberta machine intelligence institute. Certificates; Available on Github.