# Venkatarao Rebba

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#### **SUMMARY**

First-year Master student in Robotics and Autonomous Systems with 5+ years of experience in deep learning, machine learning, computer visi on, and software development technologies. Delivered solutions in video & audio anomaly detection, video classification, and object detection problems. Seeking summer internship opportunities in deep learning, computer vision and Robotics fields.

Area of Interest: Robotics, Deep Learning, Reinforcement Learning, and Computer Vision

### **EDUCATION**

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M.S in Robotics and Autonomous Systems (AI)	Expected May 2023
Arizona State University, Tempe, AZ	3.7 GPA
Relevant Coursework: Artificial Intelligence, Reinforcement Learning	
Bachelors in Electronics and Communication Engineering	June 2012 - May 2016
Rajiv Gandhi University of Knowledge Technologies, Nuzvid, AP, India	8.8/10 GPA

### **COURSES**

•	ROS2 Ultimate Guide for Kuka 6-DOF and Custom Robotics Arms   Udemy	10/2021 – 12/2021
•	Self-Driving Car Specialization   University of Torrento   Coursera	01/2021 - 11/2021
•	Deep Learning Specialization   Deeplearning.AI   Coursera	01/2018 - 06/2018
•	Foundation of Artificial Intelligence and Machine Learning   IIIT Hyderabad	01/2018 - 06/2018

## **TECHNICAL SKILLS**

**Programming Languages** : Python, C/C++, Java

Frameworks, Libraries : TensorFlow, Keras, PyTorch, openCV, openAl-Gym, ROS, Gazebo, Docker, Rviz,

Flask, MATLAB, Scikit Learn, Pandas, Matplotlib, NumPy

### PROFESSIONAL EXPERIENCE

### Cerium Systems, Bangalore, India: Senior Engineer

06/2018 - 08/2021

- Led AI team of 4 members to build CNN, RNN, GAN models for video and audio quality assessment objectives for Intel platforms & drivers verification.
- Re-designed CNN model for video quality verification that reduced model size from 2GB to 440MB (465%), and improved training and inference performance significantly
- Created Auto-ML stack for training and tuning audio model that facilitates to build a model 10x faster
- Optimized audio data pre-processing mechanism, reduced overall training time for a model from 5hrs to 2hrs (250%)
- Boosted inference performance from 20 images/sec to 60 images/sec (300%)
- Simulated ~10GB image & audio dataset by generating anomaly patterns and applying augmentation techniques

### Vassar Labs, Hyderabad, India: Software Engineer

01/2016 - 04/2018

- Implemented two machine learning models to forecast the rain probability in Andhra Pradesh state, India
- Developed linear regression model to impute the missing data for the size of 100k samples.
- Worked in full-stack development for creating three dashboards and two android applications
- Created 20 REST APIs by fetching and processing data from the MySQL database for dashboard development
- Improved MySQL query performance which cut down the dashboard load time by 55%
- Automated data base management that aided system to achieve 5x faster results.

### **VOLUNTEER**

- Volunteer trainer for data science classes to the community
- Member of Rossum Rumblers robotics group at ASU
- Active member of SME group, a non-profit group of manufacturing industry.