Rajan Shukla

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EDUCATION

INDIAN INSTITUTE OF TECHNOLOGY, MANDI
MTech in Communication and Signal processing
Machine Learning
Aug 2021 - Aug 2023

MAHARISHI DAYANAND UNIVERSITY, ROHTAK
BTech in Electronics and Communication
July 2016 - July 2020

LINKS

LinkedIn:// rjn32s
Github:// rjn32s

SKILLS

Technical Skills

proficient with:
Python • Matlab • Deep Learning •Machine Learning •Computer Vision •RegeX •NLP •GIT •Docker •C++ •Linux
Improving myself with:
kubernetes • Rest Api •MLops
Have an idea with:
SQL

Soft Skills

Graphic Design •
Quick Learner •
Team work •
Innovative Thinking •

EXPERIENCE

TELUS INTERNATIONAL AI
| Remote JOB (Part Time)
Dec 2021 – Present

TEACHING ASSISTANCE
IC231-Measurement and Instrumentation Practicum
EE534-Probability and Random Processes
IC152 Computing and Data Science

TECHNICAL PROJECTS

SDA-WEBTOOL(LATEST PROJECT) | Data Analysis
Sept 2022 – Present
Developing a web tool for doing the data analysis on Temperature (1901-2020) For Northern Himalayan Region and India.
Github:Link

PRE-FALL DETECTION BASED ON HUMAN GAIT | TinyML
July 2022 – Present
This Project aims to Train an neural network for making prediction if a person is likely to fall based on the data from IMU(Inertial Measurement Units) or sEMG(surface-Electromayography) sensors. Further this neural network will optimized with the TinyML technique which will enable this neural network to be deployed on the an Edge device.
For the development of the project we will be deploying and testing on **Arduino BLE 33 sense** micro-controller.

OPENCV-WHITE BOARD CAMERA | Computer Vision
Dec 2021 – Jan 2022
Designed a Computer vision based system to be used on the side or top of white board to capture image for correcting the skewness and uneven brightness.Finally the system is deployed on RasperryPI
Developed networking Protocol for frame transmission
Designed a 3D printable Case for the RaspberryPI
(Edit) **Won 3rd best Project prototype during Engineering's Day's project exhibition at Campus**
Github:Link Youtube Demo:Link

TOMATO PLANT DISEASE PREDICTION | Computer Vision-Convolutional Neural Network(CNN)
Trained the CNN Network to classify the 6 different leaf diseases on tomato plants with an accuracy of **80.13 %** . Then the trained model is converted into the Rest API after that is containerized with the docker engine. Finally, the container is deployed onto the Amazon EC2 instance.
(Edit) Recently accuracy improved by **6 % using RESNET** based model.

IOT-SMART CO-WORKING SPACE |Final Year BTech Project
JAN 2020 – JULY 2021
Developed a network of 11 node to fully automate the rental working space. The Network consist of:
RaspberryPI-3, **ESP8266**-4, **ESP32**-2, **Xbee**-3
All of the above node are capable making query to other network using **MQTT** protocol. A centralized dashboard using **Node-Red** for monitoring each node.