# BHARANISHRAJ D

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#### Education

#### **Indian Institute of Information Technology Design and Manufacturing**

Chennai, India

MASTER OF TECHNOLOGY IN SMART MANUFACTURING

July 2019 - May 2021

- CGPA: 9.04/10
- · Courses: IIoT and Cloud Computing, Machine to Machine Communication, Analysis of Big-Data systems, Introduction to Machine Learning.

#### **PSNA College of Engineering and Technology**

Dindigul, India

BACHELOR OF ENGINEERING IN MECHANICAL ENGINEERING

July 2014 - May 2018

#### Skills \_

**Languages** Python, C#, C, C++, MATLAB, HTML, CSS **Python Framework** Django, Tensorflow, SKlearn, CV2, keras

MATLAB Products SIMULINK, SIMSCAPE, Deep Learning Toolbox, System Identification Toolbox

**Softwares** Unity, Blender, CATIA, Fusion360

**Other technologies** Augmented Reality, Virtual Reality, Digital Twins

### Projects \_

Self driving car model using CNN Developed a deep learning model for self driving car using Convolution neural network. The model is tested using the car game simulator made with unity. **Platform:** tensorflow, cv2, keras – on Python

Stone, Paper, Scissor game using CNN Made a game for stone paper scissor single player game with computer and as a 2 player game. Model is trained using CNN. Data are generated as 3D modelling software as a human hand in blender. Platform: tensorflow, cv2, keras, Python.

Controlling cursor with Hand-tracking Controlling the cursor of laptop with hand gesuters using handtracking. By building the handtracking module the index finger tip is used to track the cursor. Platform: Python, cv2, mediapipe

PC volume control using Hand Gestures Volume of PC is controlled using hand gestures. The volume is controlled by Thumb finger and Index finger. Platform: Python, cv2, mediapipe

**Game Automation using Python** The game PianoTiles was automated using python.

Augmented reality app for TurboFan visualization Devloped an AR app for Turbofan visualization. Plaftorm: Unity, Vuforia, Blender

**Website for Hackathon** Created a static website for our college hackathon.

## Academic Projects \_

Predictive Maintenance for Gearbox cooling system using DIGITAL TWIN Developed a digital model for gearbox cooling system using MATLAB and getting fault data from the system to train the machine learning model. Prediction model using the failure data using ML algorithm.).

IoT- Based controlling surrounding temperature & humidity in the industry environment Using Rpi and sensors, controlling and automation of industrial asset for the workers safety and logging data in cloud for analytics in future.

SMART LED panel - A LED panel controlled using raspberry-pi integrating IoT Using Rpi controlling the LED panel and pushing the image to display in cloud. The panel is made in house by using the pixel LED. Platform: Python, Rpi and Linux.

## Extracurricular Activity \_\_\_\_\_

2019-2021 **Teaching Assitant**, Indian Institute of Information Technology Design and Manufacturing 2019-2021 **Teaching Volunteer**, Vidhai-NGO for unprivileged children

2015-2017 Member, Rotract club-PSNACET

Chennai, India Chennai, India Dindigul, India