



# **Dharshan R E**

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600092, Chennai, India (Home)

#### ABOUT ME

Aspiring B. Tech Computer Science student pursuing fourth year, proficient in Python programming with a strong foundation in Artificial Intelligence, Machine Learning, and Computer Vision. Passionate about contributing to innovative projects in AI and ML, with a focus on cutting-edge applications like OpenCV

### EDUCATION AND TRAINING

25/08/2021 - CURRENT Chennai, India

B.TECH COMPUTER SCIENCE AND ENGINEERING Hindustan Institute of Technology and Science

Website <a href="https://hindustanuniv.ac.in/">https://hindustanuniv.ac.in/</a> | Field of study Computer Science and Engineering | Final grade 89.75 Percentage |

Level in EQF EQF level 5

01/06/2020 - 29/05/2021 Chennai, India

**HIGHER SECONDARY CERTIFICATE(12TH)** Leo Matriculation Higher Secondary School(Tamil Nadu Syllabus)

Level in EQF EQF level 3

01/06/2018 - 29/04/2019 Chennai, India

**SECONDARY SCHOOL LEAVING CERTIFICATE(10TH)** Leo Matriculation Higher Secondary School(Tamil Nadu Syllabus)

Level in EQF EQF level 3

#### WORK EXPERIENCE

01/02/2024 - 30/04/2024 Chennai, India

#### INTERN AS ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING INNOVATE INTERN

Implement and train Mask R-CNN models for object detection and segmentation tasks.

Preprocess and annotate datasets to ensure accurate model training.

Evaluate model performance using metrics like mAP and IoU, optimizing for better results.

Document workflows and collaborate with the team for project alignment.

**Business or Sector** Information and communication | **Department** Artificial Intelligence and Machine Learning |

Email <a href="mailto:hello@innovateintern.com">hello@innovateintern.com</a> | Website <a href="mailto:www.innovateintern.com">www.innovateintern.com</a> |

Link https://drive.google.com/file/d/1K67dB8Pwlv6c6wEoTN9hI3fGGUOs8j0f/view?usp=sharing

## PROJECTS

01/01/2023 - 30/05/2023

**Table Tennis using Hand Gesture** 

Developed a GUI using Pygame for the Table Tennis Game and created the environment and resources for the game. Used Holistic Mediapipe and Computer Vision for Hand tracking and Developed a code explicit AI for Single Player Mode.

01/07/2023 - 30/11/2023

### **Contactless Doorbell System**

Build a contactless doorbell system using an esp32 cam for image capture and detecting motion Used legacy of the Blynk app which involves cloud deployment using Java and customized the settings for the contactless doorbell system app scription.

01/02/2024 - 30/05/2024

### **Electric Vehicle Maintenance Scheduling**

Developed an electric vehicle maintenance system using a customized ESP32 PCB Board.

Integrating Sensors for collecting data and using ML Clustering Algorithms will cluster the data for future optimization.

01/02/2024 - 30/05/2024

## **Sign Language Interpretation**

Implementing Real-Time Sign Language Recognition using the Trained Model of the h5 Keras File. Collected the Data using Computer vision and trained the model online to convert it into an h5 keras file which is optimized for hand sign recognition

01/07/2024 - 30/11/2024

## **Portable Motion Capture for Game Development**

Created a budget-friendly, GPU-optimized motion capture system for seamless game development. Implemented WebXR API and live streaming to enhance real-time motion capture usability.

#### HONOURS AND AWARDS

12/09/2023

## Innovative Idea Skill-A-Thon 23 - Hindustan Institute of Technology and Science

**Award for Innovative Idea in Game Designing**: Recognized for presenting a creative and unique concept in the field of game design during Skill-A-Thon 23.

**Excellence in Innovation**: Demonstrated outstanding skills in game mechanics and design, contributing to cutting-edge ideas in computer science.

Link https://drive.google.com/file/d/1IMkWyagg gK0BWOLCiaRuhavpUviLwb6/view?usp=sharing

#### LANGUAGE SKILLS

Mother tongue(s): **TAMIL** 

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
GERMAN	A1	A1	A1	A1	A1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

#### DIGITAL SKILLS

### **Digital Skills - Test Results**

lnformation and data literacy	ADVANCED Level 6 / 6
nd collaboration	ADVANCED Level 6 / 6
Digital content creation	ADVANCED Level 6 / 6



Problem solving ADVANCED Level 6 / 6

Results from <u>self-assessment</u> based on <u>The Digital Competence Framework 2.1</u>

## **My Digital Skills**

Google colab | Microsoft Office ( Word , Excel and Power Point ) | Google drive/ gmail | Video Conferencing (Zoom, Teams, Skype, Webex) - Advanced

## HOBBIES AND INTERESTS

## **Computer Vision**

**OpenCV Project Contribution**: Developed a tennis player analysis system leveraging computer vision techniques.

## **Game Development**

**Explored Game Development**: Designed and prototyped games using the Godot Engine to enhance creativity and technical expertise.