

Pardhu Nadella

pardhunadella.com | [LinkedIn](#) | [GitHub](#)

Location: Hyderabad, Telangana, India.

Email: pardhunadella@gmail.com | Mobile: (+91) 9703839966

Passionate machine learning and deep learning enthusiast with a strong will to make impactful contributions in the fields of robotics and drones. Excited to leverage my skills to drive advancements in robotics and drones, by applying state-of-the-art machine learning, deep learning and computer vision techniques. Eager to explore innovative opportunities that combine my passion for technology and my vision for the future.

PUBLICATIONS

ICASPACE-2023	<i>Mahatma Gandhi Institute Of Technology (MGIT), Hyderabad</i>	2023
<i>2nd International Conference on Advances in Signal Processing and Communication Engineering (ICASPACE-2023)</i>		
Nadella, P., Bindu, B., Sri Sindhu, P.S., Sri Krishna Kireeti, G., Bindu Valiveti, H., Krishna Reddy, C.V. (2024). Real-Time Accident Detection and Reporting System Using Edge Computing and Convolutional Neural Networks with Integration of GPS for Public Safety. In: Kumar Jain, P., Nath Singh, Y., Gollapalli, R.P., Singh, S.P. (eds) Advances in Signal Processing and Communication Engineering. ICASPACE 2023. Lecture Notes in Electrical Engineering, vol 1157. Springer, Singapore.		
https://doi.org/10.1007/978-981-97-0562-711		

EDUCATION

Gokaraju Rangaraju Institute of Engineering and Technology (GRIET)	Hyderabad, Telangana, India.
<i>Bachelor of Science in Electronics and Communication Engineering</i>	2019 – 2023
Narayana Junior College	Hyderabad, Telangana, India.
<i>Intermediate in MPC</i>	2017 – 2019
Keshava Reddy School	Hyderabad, Telangana, India.
<i>High School</i>	2012 – 2017

EXPERIENCE

Systems Engineer	October 2023 – Present
<i>Tata Consultancy Services (TCS)</i>	<i>Hyderabad, Telangana, India</i>
<ul style="list-style-type: none">Received extensive training on the Core Java, JDBC, JSP and Servlets.Served as a Scrum Master for a real-time Full-stack project called E-Bill during the Initial Training Program.	
Intern	March 2023 – June 2023
<i>Tata Consultancy Services (TCS) - London Stock Exchange Group (LSEG)</i>	<i>On-site – Hyderabad, Telangana, India</i>
<ul style="list-style-type: none">Received extensive training on the Fundamentals of Azure (AZ-900) course.Exposed to an environment working in Agile Working Methodology.Contributed to an internal project OCR-based resume parser to extract relevant information from unstructured resumes and perform Natural Language Processing (NLP) to identify the skill set of the person.	
Research Intern	June 2022 – September 2022
<i>Indian Institute of Technology (IIT), Hyderabad</i>	<i>On-site – Hyderabad, Telangana, India</i>
<ul style="list-style-type: none">Developed an obstacle avoidance drone using LIDAR-Lite V3 sensor, interfaced with a Pixhawk 2.4.8 - PX4 Firmware.Worked on Autonomous path planning in drones using PX4-SITL, Mavlink in Python and Gazebo as the simulator.Worked on obstacle detection for autonomous drones using ROS on Nvidia Jetson TX2 as the onboard computer and 64-bit Ouster Lidar sensor, using C++ and Python.	
ROS Developer Intern	February 2022 – April 2022
<i>H-Bots Robotics</i>	<i>On-site – Hyderabad, Telangana, India</i>
<ul style="list-style-type: none">Developed various autonomous differential drive robots using Python, C++ in ROS using Nvidia Jetson Nano as an onboard computer for path planning of the robot in real-time using Simultaneous Localization and Mapping (SLAM) algorithm.Used RP-Lidar A2 sensor to detect and avoid obstacles in real time.	

PROJECTS

Real-Time Accident Detection	<i>Computer Vision, Machine Learning, Deep Learning, Edge Computing and Web development.</i>	2023
<ul style="list-style-type: none">Trained and validated various Machine Learning and Deep Learning Models to detect and report accidents in real-time on the roads and performed comparative analysis of those algorithms.Utilized SQLite database to maintain the records of accidents i.e. GPS co-ordinates, images of the accident, etc.Designed and developed a responsive webpage in HTML, CSS and JS to track accidents in real-time. The webpage is connected to SQLite database using flask in python.		
Autonomous Attendance System	<i>Computer Vision, Machine Learning and Web Development.</i>	2022
<ul style="list-style-type: none">Trained a Deep Learning Model to detect the students and provide attendance only for the duration for which they are present.Maintained a database in MySQL, using flask in python as the backend to track the attendance.Designed and developed a responsive website in HTML, CSS and JS with student and teacher dashboards to track attendance and for the teacher to provide extra attendance in the case of special permissions.		

Fitness assistant realtime multiplayer web game

Computer Vision and Web development.

2022

- Developed a flappy bird game using HTML, CSS and JS where the bird is controlled by the user's pushup, which is tracked by tracking the coordinates of user's nose using mediapipe library.
- Utilized **Google Firebase real-time database** to store the room ID's, padswords and the user's scores.
- A leaderboard is displayed on the user's screen.

Virtual Black Board

Computer Vision.

2021

- Developed an application in **python** during covid times for teachers to write, using their index finger as a virtual pen.
- Tracked the index finger and the thumb using **Mediapipe library in python**.

Real-Time Asthma Detection

Internet of Things and Machine Learning.

2021

- Designed and developed a wearable device comprising of a microphone, a circuit to suppress the noise in the input signal and a battery to analyze breathing patterns and identify an asthma attack in real-time and ring a buzzer to help the person find the inhaler during an asthma attack.
- Employed machine learning in Python to classify input signals as either asthmatic or non-asthmatic.

Smart Contactless Sanitizer Dispenser.

Internet of Things.

2020

- Designed and developed a smart contactless sanitizer dispenser and door system, which checks if a person has sanitized his hands before opening the door.

TECHNICAL SKILLS

Languages	: Python, Java, Arduino, C, C++, HTML, CSS, JS
Domains	: Computer Vision, Robotics, Drones, Machine Learning, Deep Learning, Internet of Things
Operating Systems	: Windows, Ubuntu, MacOS, ROS

CERTIFICATIONS

- Microsoft Certified: Azure AZ-900
- NPTEL: The Joy of Computing Using Python
- NPTEL: Introduction to Internet Of Things

ACHIEVEMENTS

Megathon-22 (1st place)	International Institute of Information Technology (IIIT), Hyderabad	2022
Fitness Assistant multi-player game using Computer Vision in HTML, CSS and JS		https://webgame-fc286.web.app/
Specathon (2nd place)	St Peter's Engineering College (SPEC), Hyderabad	2022
Fitness Assistant single-player game using Computer Vision in Python		https://webgame-fc286.web.app/
Medhanvesh (1st place)	B. V. Raju Institute of Technology (BVRIT), Hyderabad	2021
Asthma detection using IoT and Machine Learning.		
Clean Energy Ideathon (2nd place)	IEEE GRIET SB PES.	2021
Virtual Black Board.		
Project competition Tantra 2K20	Padmabhushan Vasantadata Patil Pratisthan's College of Engineering, Sion, Mumbai.	2020
Secured 1st place for my project Smart Contactless Sanitizer Dispenser.		