PRAJWAL NAGARAJ

CONTACT

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Bold Profile

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https://github.com/Mickey46

SKILLS

- AI (Artificial Intelligence)
- Deep Learning
- Autonomous UAVs and UGV (Quadcopters) Drone Engineering and MRO -
- Data Science and Analytics: Compression Sensing, Vectorization, Transformers, OISC Architecture
- Neural Networks
- Python and C Language
- Prompt Engineering
- IoT
- Full Stack

INTEREST

Deeply interested in the applications of AI in drone technology, specifically focusing on multi-agent drone swarms. With the rapid advancements in drone technology and AI, I believe multi-agent systems represent the future of autonomous operations. These systems can revolutionize sectors from agriculture to defense, offering coordinated, efficient, and smart solutions. I am keen on exploring and contributing to the development of algorithms and systems that can harness the power of swarm intelligence,

Dedicated professional skillful in sample collection, data recording and instrument calibration. Resourceful and adaptable individual with extensive experience developing and conducting experiments to document results for studies. Comfortable handling complex issues, meeting strict deadlines and adjusting to rapidly changing conditions.

EDUCATION

Expected in August 2024
Master of Science Data Science And Analytics
Florida Atlantic University, Boca Raton, FL

August 2022
Bachelor of Engineering Computer Science
BMS Institute of Technology And Management, Bangalore, India

WORK HISTORY

September 2023 - Current
Research Assistant ***MPCR Labs***

- I led the Agrispectral Vision Project, using ESP32 LoRa and LoRaWAN ZoneMinder to analyze camera feeds with deep learning for real-time crop disease prediction and pest detection, aiming to transform agriculture. I developed a hyperspectral imaging technique for versatile applications, surpassing YOLO v4 in object detection. Additionally, I pioneered Compression Sensing for efficient LoRa network image transfer. Currently, I'm collaborating on a crop yield prediction dashboard, providing actionable insights for agricultural optimization.
- My research primarily focuses on Compression Sensing methods, Vectorization, Transformers, and OISC architecture, allowing me to explore cutting-edge approaches in AI and data analysis.
- In addition, I am deeply committed to advancing the field of Medical AI Devices and AI Safety and artificial immune Systems, leveraging my expertise to create innovative solutions that improve healthcare outcomes and ensure the ethical use of AI.

August 2023 - Current
Peer Mentor ***FAU OURI Undergraduate Research***
As a dedicated Peer Mentor, I have had the privilege of guiding and inspiring aspiring computer science and engineering undergraduates in their research pursuits, creating a supportive environment through personalized mentoring and office hours to nurture their interest in research and inquiry. Additionally, I've contributed to student professional development by co-hosting 'Meeting of the Minds' events, connecting them with faculty research, and fostering interdisciplinary collaboration. Furthermore, I've amplified outreach efforts through orientations, classroom presentations, and tabling events to raise awareness about research opportunities.

optimizing drone performance in various scenarios.

CERTIFICATIONS

- Computer vision
- Advanced java programming with eclipse
- Google Cloud Certified Professional Cloud Architect
- Intro to Deep Learning
- Cyber security challenges and solutions

AWARDS

Best project award
Controlling of RPG using laser, working model using Arduino UNO .

PUBLICATIONS

Early Recognition of Alzheimer's Disease Using Machine Learning

June 2023 - September 2023
Graduate Student Researcher ***Florida Atlantic University***

- See-through wall technology
- Our pioneering project explores the application of advanced radio wave technology and the Doppler effect to develop a breakthrough see-through wall system capable of accurately detecting the presence of a person behind a wall or obstacle.

January 2023 - March 2023
Full Stack ***Entoo***

- I was working on react.js and Data science Project: To sort the box into a specific area using computer vision and a conveyor belt, we must employ OCR to gather text from packages from Amazon and other sellers.
- Use classification techniques to arrange the boxes by the delivery agent's past performance data to expedite delivery.

September 2021 - February 2023
Research Fellow ***BMS Institute of Technology and Management***

- Early Recognition of Alzheimer's Disease Using Machine Learning
- A classifier is utilized to identify distinct phases of AD using error propagation (EBP) of an artificial neural network
- The proposed tech offers an average accuracy of 86.8%- unique.

November 2020 - February 2021
MRO Head ***AgriApp Technologies Pvt Ltd***

- I have professional experience with autonomous UAVs (Quadcopters, Hexacopters, and Hybrid Petrol Drones with Payload Capacity Ranging From 10kg To 110kg) and UGV from Criyagen Agri & Biotech Company.
- I was working as a Drone engineer and MRO engineer.