Ramkumar M V

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Profile

B.Tech graduate from SRM Institute of Science and Technology with a stellar CGPA of 9.58/10, earning a Performance Based Scholarship in recognition of academic excellence. Demonstrated passion for research through participation in internships across two countries. Highly skilled in data analysis, machine learning, IoT, and computer vision, with hands-on experience in creating innovative solutions for real-world challenges. Successfully contributed to research projects at MITACS, Canada, and as a Global Academic Intern at NUS, Singapore.

Skills

Excel , Python, SQL, Tableau, Data analysis, Data modeling, Scikit-Learn, Feature Engineering, Matplotlib, Cloud Deployment, Pandas, NumPy, Predictive analysis , MS Office ,Tensorflow, Raspberry Pi, OpenCV, Problem solving

Education

B.Tech E.C.E - (9.58/10)   *SRM Institute of Science and Technology*   **Chengalpattu, India** *2020-2024*

Relevant Courses: Applied Machine Learning, Pattern Recognition and Neural Networks, Data Analysis using Open Source Tools, Machine Perception with Cognition, Advanced calculus and complex analysis, Probability and stochastic processes.

Professional Experience

AI/ML Engineer *(IIT Madras Research park)*   **Chennai, India** *June 2024 - Present*
- Developing a home automation system for houses and a security system for Indian Oil Corporation Ltd. Implementing solutions to enhance operational efficiency and security measures.

Machine Learning Intern *(MITACS Globalink Research)*   **Toronto, Canada** *Jun 2023 - Sept 2023*
- Worked with **Austin Page** and **Prof Akramul Azim** to create **EcoPal**, to cut carbon emissions via IoT and Machine Learning. It encompasses two core functions: utilizing ML to suggest activity adjustments and enabling direct control of household devices through the app.

Global Academic Intern *(National University of Singapore)*   **Kent Ridge, Singapore** *Dec 2022 - Apr 2023*
- Led the development of a custom VGG model for retail product prediction, integrating hand gesture detection for enhanced user interaction. Proficient in data collection, preprocessing, CNN implementation, and deployment on AzureML.

Computer Vision Intern *(Airdonex Technologies Pvt Ltd)*   **Chennai, India** *Nov 2022 - Mar 2023*
- Developed an automated drone landing system employing computer vision with ArUco marker detection.Leveraged MAVROS, Ardupilot, and MAVLink to validate functions, contributing to a 80% enhancement in drone system capabilities through OpenCV.

Projects

Crop Care AI: The smart farming revolution   *Jan 2024 - April 2024*
- Utilized NPK sensors and machine learning algorithms to provide real-time crop recommendations and fertilizer quantities through a user-friendly mobile app. This promotes sustainable farming practices and improve crop yield across the nation.

Plant disease prediction using Raspberry Pi   *Mar 2022 - May 2022*
- Built a Raspberry Pi module utilizing CNN for 94% accurate plant disease prediction and real-time user notifications to the user interface. Added the need for doctors assistance tab.

Coalesce of IR and NDIR sensors   *Jan 2022 - April 2022*
- IR and NDIR sensors for CO_2 and gas/car detection, leveraging IoT and Zigbee technologies. Established a database infrastructure for data storage and analysis.

Design and development of user-adaptive bubble tube   *Nov 2021 - Jan 2022*
- Created a multi-mode bubble tube for autistic children, using ML and IoT to adjust therapy settings based on analyzed actions. Providing customized support for autistic children.

Research Paper

- The modern IoT and ML-based water quality monitoring system - SRMIST 2023
- Crop Care AI: The smart farming revolution - MIWAI 2024