Raam Prathap R V

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Education

Amrita Vishwa Vidyapeetham August 2023 - Present

Bachelor Of Technology, Computer Science & Engineering | CGPA: 8.55/10 Coimbatore, India

Developer Intern @Metatron Cube Offer Letter February 2025 - Present

AI/ML Developer Intern at MetatronCube Software Solutions, working on generating 3D walkthroughs from building blueprint images using machine learning techniques. Remote

Projects

Ria Photography | HTML, CSS, JS, PYTHON, FLASK| GitHub Org Link | **Demo**

- ➔ **Comprehensive Studio Portfolio**: The website showcases the studio's creative work, including photo galleries and video highlights, through dedicated sections styled with custom CSS and organized for seamless navigation.
- ➔ **Booking and Client Engagement**: A booking page allows clients to schedule appointments or request services, supported by a structured interface and backend scripts for smooth user interaction.
- ➔ **Dynamic and Responsive Design**: Built with a combination of HTML, CSS, JavaScript, and Python, the project ensures an engaging user experience, incorporating a privacy policy, custom styles, and organized content across multiple templates and directories.

Bird Species Classifier |PYTHON, TENSORFLOW, HTML, BOOTSTRAP, CSS, JS, FLASK| GitHub Link

- ➔ **Bird Species Identification**: A web-based application that uses a machine learning model to classify bird species based on uploaded images, offering an intuitive and user-friendly interface.
- ➔ **Dynamic Model Loading**: The classifier downloads the pre-trained model from Google Drive when needed, optimizing storage and ensuring access to the latest version.
- ➔ **Streamlined User Interaction**: Built with Python and a web framework, the project includes an upload directory for user-submitted images and a responsive HTML template to display classification results effectively.
- ➔ **Deep Learning Model Architecture**: The classifier is based on a **CNN architecture** with **three convolutional layers**, **max-pooling layers**, and **fully connected layers**. The model has **11.2 million trainable parameters**, ensuring high accuracy in bird species classification.

Post-Accident Alert System |NodeJS, ExpressJS, WebSockets, HTML, CSS, JavaScript| Frontend | Backend | **Demo**

- ➔ Developed a **real-time Post-Accident Alert System** to enhance road safety by detecting accidents and automating emergency response.
- ➔ Built a **backend** using NodeJS, ExpressJS, and WebSockets to handle real-time **accident alerts** and **hospital location tracking**.
- ➔ Designed a **web-based dashboard** for **clients, drivers, and hospitals** to monitor accident reports, manage emergency responses, and track incidents efficiently.
- ➔ Implemented **role-based authentication**, **CORS support**, and a **responsive frontend** for seamless user interaction.
- ➔ Deployed the system with WebSocket-based communication to enable instant alerts for emergency responders.

Technical Skills

Areas of Interest: Full Stack Development, Machine Learning, System Design, Competitive Programming, Mentoring

Languages and Frameworks: C, C++, Python, Java, MySQL, JS, React, Node, HTML5, CSS3, Flask, TailwindCSS, Haskell

Tools and Technologies: Git, Figma, RaspberryPi, Esp32, Arduino, PowerBI, Excel, Jupyter, Eclipse, Visual Studio

Awards / Extra-curricular

➔ **Certifcate Of Achievement | *VIT Vertex Innovate* |** View Certifcate

- Developed and implemented PAAS (Post Accident Alert System), a life-saving hardware device designed to prevent fatalities in accidents by automatically alerting emergency services.
- Won the VIT Vertex Innovate Hackathon by showcasing PAAS, which integrates advanced sensors and communication technologies to swiftly notify authorities in real-time during critical incidents.
- Demonstrated innovation and technical prowess in creating PAAS, earning recognition for its potential to significantly enhance emergency response and save lives in automotive accidents.

➔ **Certifcate Of Completion | *BCG* |** View Certifcate

- Completed a job simulation involving AI-powered financial chatbot development for BCG's GenAI Consulting team.
- Gained experience in Python programming, including the use of libraries such as pandas for data manipulation.
- Integrated and interpreted complex financial data from 10-K and 10-Q reports, employing rule-based logic to create a chatbot that provides user-friendly financial insights and analysis.