PRAVIN KUMAR MAHATO

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Academic Qualifications:

Course	College/School	%/CGPA
MCA (2022-2024)	Vellore Institute of Technology, Vellore	8.31 CGPA
B.Sc. IT (2019-2022)	Kishinchand Chellaram College, Mumbai	9.20 CGPA

Internships:

- **Software Developer Intern, Kaiburr, Cambridge, MA USA (15 Nov 2023 – Present):** I've developed Django APIs, configured Docker containers, fine-tuned ML models, and implemented CRUD operations with MongoDB. I explored the Whoosh library for full-text search and engaged in prompt engineering.
- **Intern, Curaksha, Mumbai (1 Nov 2020 – 30 June 2021):** I've worked as a UI/UX Designer, a Website Analyst and Tester, and a Web Developer.
- **Web Developer Intern, Sahu Technology, Mumbai (1 Aug 2020 – 30 Aug 2020):** I've worked as a Front-End Web Developer, I was given a template and told to code according to the design.

Courses / Training:

- **Web Development, Internshala, online (Sep 2020 – Nov 2020):** A six-week online Web development course. HTML & CSS, Bootstrap, SQL, and PHP modules were included in the training.
- **Internet of Things, Internshala, online (June 2020 - July 2020):** An online course on the Internet of Things that will last four weeks. Building an IoT Monitoring System, Controlling Devices Over the Internet, Cloud, APIs, and Alerts, and Machine Learning with IoT Modules was among the topics covered throughout the session.

Projects:

- **Human Presence Detection Using RF Signals [Document Link]**
  - Collected **Received Signal Strength Indicator (RSSI)** from Esp32 and applied various statistical parameters over the **RF Signal** and successfully detected the presence/absence of a Human in a controlled environment.
- **Lung Capacity Check [Presentation Link] [Document Link]**
  - Innovated a low-cost and easy-to-use solution that calculates various **Spirometry parameters** as well as performs **Inventive Spirometry**.
  - Applied the **Bernoulli-Venturi Principle**. Setup **MongoDB** database and used **Matplotlib** to analyze the patients' results.
- **Crop Health Analysis using NDVI [Link]**
  - Calculated the health of the crops on a Web Application interfaced using **Flask.**
  - The health of the plant is known to us by the **Normalized Difference Vegetation Index (NDVI)** which is calculated by combining **RGB & NIR pixels** using the PIL library in Python**.**
- **Face Recognition Based Security Camera and Door Unlock System [Document][Research Paper][Link]**
  - **Open-CV** Python and **Internet of Things (IoT)** technologies are used in this project.
  - It contains capabilities such as **recording live streaming video**, checking if a person is registered or not when it **identifies a face**, and then it **sends an email / SMS**, to the **administrator**. The administrator can then view the **live streaming video** from the **security camera** on the **Mobile/Desktop App** and **grant access** to **open the door**.
- **RFID Based Attendance Management System [Presentation Link] [Link]**
  - The project is based on **RFID** and **Internet of Things (IoT)** technology.
  - **RFID cards** can be used to **track attendance**.
  - It also includes a website for an **Attendance Management System**, to which I have granted **separate access** to the **administrators, faculty, and students**.

Technical Skills:

- **Languages:** Python, HTML, CSS, JavaScript
- **OS:** Windows, Linux (Ubuntu, Ubuntu Server, etc.), Raspberry Pi OS
- **Frameworks:** Bootstrap, Django, Flask, Kivy, OpenCV, Numpy, Pandas, Matplotlib
- **Database:** MySQL, Oracle, Mongodb

Extra-Curricular Activities and Achievements:

- 2nd Position at KC College Internal Hackathon
- 2nd Runner Up at Mastek's Deep Blue Season 7 among the 282 registered teams.
- Participated in HackSRM 3.0 a virtual hackathon Conducted by SRM University AP and NextTechLab AP.