Ramaditya Chaudhary

Email LinkedIn GitHub Portfolio

Education

Bachelor in Technology - Computer Science and Engineering — Sep 2022 - Present

Vellore Institute Of Technology, Bhopal (CGPA: 8.55)

Projects

Banking System — Link

MongoDB, Express.js, Node.js, React.js, JWT, Tailwind CSS

- Developed a scalable full-stack Banking System using MongoDB, Express.js, React.js, Node.js, JWT, and Tailwind CSS, featuring secure authentication and role-based dashboards (admin, official, customer), reducing unauthorized access issues by 100% through token-based security.
- Automated core banking operations, including loan requests, interest calculation, account creation, and real-time balance updates, handling over 1,000+ mock transactions and enabling 100% accuracy in loan approval and repayment tracking via a modular system.
- Designed a responsive UI with detailed modals, flexible forms, and upload support, achieving mobile compatibility across 3 device types, improving UX and reducing bounce rate, while enabling admins to manage user data with add/edit/delete controls effortlessly.

Farmify — Link

Python, Flask, TensorFlow, Scikit-learn, OpenCV, HTML, CSS, JavaScript, Bootstrap, SQLite, Firebase, EmailJS

- Designed and implemented "Farmify", a web-based AI solution targeting key agricultural challenges such as inefficient crop selection and undiagnosed plant diseases, leveraging both Machine Learning and Deep Learning techniques.
- Utilized a Random Forest Classifier trained on 2,200+ multi-parameter samples (soil nutrients, pH, temperature, humidity, rainfall) to deliver crop recommendations with 95% testing accuracy, boosting yield predictability and optimizing resource usage.
- Developed a CNN-based plant disease detection model with 90% accuracy, and integrated a YOLOv8-powered image analyzer and RAG chatbot (via HuggingFace API) for real-time, multilingual farmer assistance. Constructed using Flask, TensorFlow, scikit-learn, and JavaScript, ensuring scalability, data integrity, and user accessibility.

SoulTunes — Link

Python, OpenCV, TensorFlow, Keras, NumPy, Pandas, Jupyter Notebook, HTML, CSS, JavaScript, Flask, Haar Cascade, CNN

- Utilized a CNN model with 94.35% accuracy, trained on a dataset of over 70,000 facial expressions, to enable real-time emotion detection and improve music recommendation accuracy by 35%.
- Integrated facial recognition using OpenCV along with a real-time feedback mechanism to refine recommendations, resulting in a 30% increase in accuracy and improved overall user satisfaction.

Task Flow — Link

MongoDB, Express.js, JWT, Node.js, React.js, Redux, Tailwind CSS

- Created a full-stack task management application featuring user dashboards, priority-based task tracking, and automated status updates.
- Reduced manual coordination time by 40% by enabling multi-user task assignments, file attachments, and exportable progress reports, improving team collaboration in group projects.
- Delivered a fully responsive UI that maintained 95%+ Lighthouse performance scores, ensuring seamless experience across devices and increasing user engagement time.

Skills

- **Technical Skills:** *Java, Python, JavaScript, C++, MATLAB, HTML, CSS, Bootstrap, React, MySQL, SQL Plus, MongoDB, Express.js, Node.js*
- **Tools & Frameworks:** *Git, GitHub, Beautiful Soup, Selenium, Postman API, Machine Learning*

Certification

- Achieved HackerRank SQL (Intermediate) Skill Certification
- Full Stack (MERN) with MongoDB Certification (SmartBridge in partnership with MongoDB)
- Gen AI using IBM Watsonx (IBM Career Education Program)
- Postman API Fundamentals Student Expert (Badge Earned)

Achievements

- Secured a global rank of 4685 in TCS CodeVita Season 12
- Participated in GirlScript Summer of Code 2024, contributing to open-source projects with 50+ code commits and collaborating with developers to enhance teamwork and refine software development practices.
- Navigated the complexities of more than 300 coding problems across diverse platforms like *GeeksforGeeks* and *LeetCode*, enhancing logical reasoning capabilities and reinforcing strong foundations in algorithms that drive effective programming solutions.