MAYANK YADAV
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Mayank Yadav LinkedIn

EDUCATION

- **VIT Bhopal University** *(August, 2022 – Present)*
  B. Tech CSE(Core) | CGPA: 8.68
- **Jawahar Navodaya Vidyalaya Ghaziabad** *(May, 2020 – June 2021)*
  Higher Secondary | Percentage: 92.8%

SKILLS

- C++, Java, Python, Data Structures, Django, React
- MySQL, HTML, CSS, JavaScript, Machine Learning, Git.

EXPERIENCE

SWE Co-Op Intern- AlgoUniversity
*(**Tech Stack:** Django, React, SQLite, Docker, AWS, REST APIs, Git)* *(June,2025- Ongoing)*

- Designed and built a **full-stack Online Judge system** using Django and React, integrating real-time code execution via a **multi-language compiler service** deployed in Docker containers.
- Users can browse coding problems, write and run code in-browser editor, receive hints, and submit solutions for evaluation.
- Implemented an **AI-powered code suggestion** using **Gemini APIs**, offering contextual hints during code submissions.
- Containerized the entire application using **Docker** and deployed it on **AWS EC2**, achieving scalable and high-availability infrastructure.

PROJECTS

Crop Recommendation System *(April,2025)*

- Designed a robust machine learning model using Random Forest and Decision Tree algorithms, achieving an impressive 98% accuracy in crop prediction based on various environmental and soil parameters.
- Processed and analyzed 50,000+ extensive data points covering temperature, humidity, and soil NPK levels to significantly enhance prediction precision and improve overall agricultural efficiency**.**
- Built a dynamic Flask-based web interface supporting real-time crop recommendations, effectively reducing decision-making time for farmers and agronomists.
- Optimized and reduced the model's inference time, enabling highly efficient predictions in less than 2 seconds, significantly improving user experience and overall scalability.

Tune Souls - Music Recommendation Based on Emotion Detection *(Jan, 2024)*

- Developed a real-time facial expression-based music recommendation app in a collaborative team environment, using Python, SQL, HTML, CSS, and JavaScript, enhancing personalized music experiences.
- Efficiently integrated OpenCV and a deep learning-based CNN model, achieving an impressive 88% accuracy in real-time emotion detection across seven primary emotions (happy, sad, angry, neutral, etc.).
- Processed and analyzed 10,000+ diverse facial images to effectively train and fine-tune the model, greatly improving robustness, precision, and overall accuracy in emotion recognition.
- Enhanced the recommendation engine by dynamically suggesting contextually relevant songs based on real-time user expressions, successfully increasing overall user engagement.

Dream Reads - Book Recommendation Website *(Feb, 2023)*

- **S**uccessfully developed a highly efficient book recommendation system as part of a dedicated 5-member team, significantly improving personalized recommendations for thousands of active users.
- Engineered an interactive, user-friendly UI using HTML, CSS, and JavaScript, Optimized and fine-tuned the front- end interface, reducing load time.
- Implemented collaborative filtering with Nearest Neighbors, improving recommendation accuracy by 25%.
- Achieved an overall recommendation accuracy of approximately 85%, enhancing personalized user experienced**.**

ADDITIONAL INFORMATION

- **Hobbies:** Coding, Exploring Technology, Sports, Music, Photography
- **Languages:** English (Professional working proficiency), Hindi (Native or bilingual proficiency)