Riddhika Tripathi

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Technical Skills

Programming Languages: Java, Python, C, C++, HTML, CSS, JavaScript
DevTools/Frameworks: MySQL, PyTorch, OpenCV, Dlib, Google Collab, Figma, Latex, React.js, Nodes.js

Projects

- **IntelliLearn: Multi-Agent AI Tutoring Platform** | *Python, FastAPI, Gemini API*   Jan 25 - Feb 25
    - Engineered a production-grade AI tutoring system simulating dynamic multi-agent conversations using FastAPI and Gemini API, handling over 1,500+ real-time student queries with >92% accuracy in response relevance.
    - Deployed on Railway with 99.9% uptime, achieving average API latency <700ms; collaborated via GitHub with versioned releases and CI/CD, contributing to a 40% faster development cycle.

- **Plant Disease Detection** | *Python, Machine Learning, ResNet18*   Oct 24 - Dec 24
    - Developed an AI-driven system using ResNet18 to classify 39 plant leaf diseases with 89.78% accuracy, leveraging a dataset of 61,486 images and employing advanced preprocessing and data augmentation techniques like flipping, scaling, and noise injection.
    - Optimized the system for real-world deployment, enhancing resilience to variations in lighting and orientation, thereby supporting scalable and real-time agricultural applications.

- **DozeDefender: Student Vigilance System** | *Python, OpenCV, Dlib*   Aug 23 - Nov 23
    - Conceptualized and developed 'DozeDefender' using Python, OpenCV, and Dlib for facial recognition, contributing to a 20% reduction in student lapses during study sessions and fostering a more engaging and productive learning environment.
    - Applied advanced machine learning techniques and OpenCV for precise facial recognition, resulting in a 15% improvement in detecting drowsiness and a 15% increase in overall student attentiveness, focus, and productivity.

Education

VIT Bhopal University	Sehore, Madhya Pradesh
B. Tech Computer Science and Engineering	Sep 22 - Jun 26
CGPA: 8.34	
Assisi Convent School	Etah, Uttar Pradesh
Class XII - 75%	Jul 22
Assisi Convent School	Etah, Uttar Pradesh
Class X - 93%	Jul 20

Professional Experience

- **Winter Internship at India Space Lab**   Dec 24 – Jan 25
    - Undertook a 4-week training at India Space Labs, mastering drone system design, CanSat & CubeSat engineering, and utilizing advanced astronomy tools and techniques.
    - Gained in-depth technical expertise in UAV technology and satellite systems by analyzing 10+ real-world case studies and engaging in 15+ hands-on practical learning sessions.
- **Creative team Member at Bit By Bit Club**   Nov 23 - Nov 24
    - Contributed to pre-sales activities by analyzing business requirements and providing technical input for solution offerings, enhancing client engagement.
    - Led multimedia content creation and video production using Adobe Suite and Canva, driving a 25% increase in user interactions and a 15% growth in social media reach.

Certifications

- Introduction to Generative AI - Google Cloud,2024
- Database Management Systems for Developers: Foundations - Oracle,2024
- Cloud Computing - NPTEL, 2024
- GEN AI using IBM Watsonx - IBM, 2025

Achievements

- Secured a prestigious position in the Top 500 of **EricssonEdge Academia Innovation Challenge**, showcasing excellence in innovation, problem-solving, and advanced technology applications.
- Secured Rank 134 in **CodeKaze'24 by Coding Ninjas**, India's largest coding competition with 140,000+ participants, demonstrating strong problem-solving and programming skills.
- Completed 100+ **LeetCode** challenges and participated in 50+ coding contests using Java, C++, and Python, strengthening DSA, logical reasoning, and algorithmic thinking.
- Achieved a 5-star rating in Python on **HackerRank** by solving 40+ advanced problems in Strings, Arrays, Lists, and sorting algorithms, showcasing strong problem-solving and algorithmic skills.

Languages

Fluent in English and Hindi.