Riddhika Tripathi

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Education

VIT Bhopal University	Sehore, Madhya Pradesh
B. Tech Computer Science and Engineering	Sep 22 - Jun 26
CGPA: 8.28	
Assisi Convent School	Etah, Uttar Pradesh
Class XII - 75%	Jul 22
Assisi Convent School	Etah, Uttar Pradesh
Class X - 92.4%	Jul 20

Technical Skills:

DevTools/Frameworks: MySQL, PyTorch, OpenCV, Dlib, Jupyter Notebook, Google Collab, Figma, Latex, *React.js, Nodes.js*

Programming Languages: C, C++, Java, Python, HTML, CSS, JavaScript

Certifications & Training:

- The Bits and Bytes of Computer Networks (Google) - Coursera,2023
- Introduction to C++ - Simplilearn
- Introduction to Generative AI - Google Cloud,2024
- Database Management Systems for Developers: Foundations - Oracle,2024
- Generative AI for Research & Development with AWS, Python - Udemy (Ongoing)

Projects

- **Plant Disease Detection** | *Python, 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.
- **CodeConnect - Collaborative Coding Platform** | *React.js, Nodes.js, Figma*   Dec 24 - Ongoing
  - Engineered an innovative online platform with integrated video chat using React.js for dynamic frontend design and Figma for UI/UX prototyping, enabling real-time collaborative coding and enhancing user communication and productivity through WebRTC technology.
  - Spearheaded the development of collaborative features like code sharing and real-time editing with CodeMirror and WebSocket, improving developer engagement by 40% and optimizing backend performance with Node.js for high concurrency and low-latency communication.

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 | 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.

Related Coursework

- Data Structures and Algorithms
- Computer Architecture and Organization
- Machine Learning
- Design and Analysis of Algorithms
- Software Engineering
- Computer Networks
- Operating Systems
- Database Management System

Achivements

- 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.