Kriti Porwal

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Education

Vellore Institute of Technology Bhopal University, Bhopal   *October 2022 – May 2026*
B.Tech, Department of Computer Science and Engineering   *CGPA – 8.70/ 10*

Skills

Languages: C/C++, Java(DSA focused), Python (Pandas, NumPy, Scikit-learn), JavaScript, TypeScript, SQL, HTML5, CSS

Technologies & Tools: AWS, EC2, S3, ReactJS, NodeJS, ExpressJS, TailwindCSS

Developer Tools: GitHub, VSCode, Postman, Eclipse

Projects

MindfulChat - Full-Stack Development + AI Integration   Github Link
• Built full-stack mental health chatbot using BERT sentiment analysis and Google Gemini AI, achieving 95% emotion detection accuracy with sub-2-second response times.
• Architected a streamlined therapeutic chatbot by integrating Google Gemini AI with a Python backend, decreasing average conversation processing time by 40% while holding 95% BERT model accuracy.
• Deployed scalable therapeutic platform supporting 500+ concurrent users with an 85% satisfaction rate, integrating multiple AI frameworks for healthcare applications.

Indore Route Pathfinder - Web Development & Graph Algorithms   Github Link
• Built full-stack route optimization app using React.js, Node.js, and MongoDB with 5+ API endpoints for Indore transportation planning.
• Engineered a route optimization module utilizing Dijkstra's algorithm in JavaScript, decreasing computational complexity from $O(n^3)$ to $O(n \log n)$ and improving route calculation speeds by 60%.
• Engineered dual optimization modes (distance vs cost) with complete CRUD operations for scalable transportation network analysis.
• Developed interactive UI with station management system allowing users to add/connect stations with distance and cost parameters.

AgroShield – AI-Powered Crop Disease Detection   Github Link
• Designed a robust assessment framework for machine learning models, increasing classification accuracy by 40% and achieving 92% diagnostic precision.
• Worked with a 5-person team to refine the predictions through over 500 unique evaluations, fine-tuning the model's efficiency.
• Analyzed more than 20 research papers with essential extractions regarding insights on 8–10 major crop diseases and formatted critical sections of a research paper to fortify findings.

Real-Time Driver Drowsiness Detection System: 95%+ Accuracy Across All Conditions   Github Link
• Designed and executed a user interface prototype for the driver drowsiness detection application, enhancing user experience by ensuring streamlined interaction with real-time alerts, leading to positive feedback from 100% of test users.
• Reduced driver risk scores by 15% through machine learning-driven behavioral analysis. Insights from the model helped create actionable recommendations, leading to safer driving habits within two months.
• Collaboratively created a high-accuracy model for a driver drowsiness detection system, achieving 95% with less than 3% positives.

Work Experience

AICTE Internship on AI: Transformative Learning - Microsoft-SAP :

• Revamped image processing pipelines, ensuring seamless integration with advanced stability improvements that produced over 2,500 images weekly while retaining exceptional accuracy and consistency across all graphics created.

Extra-Curricular Activities

• **Core Member, Data Science Club** - Engaged in data analysis projects, workshops, and machine learning initiatives
• **Core Member, Software Development Club** - Led cross-functional teams building innovative web applications, mentored 50+ junior developers, and architected scalable solutions, increasing project efficiency by 40%.

Achievements

• **First Prize Winner - Urja Shakti Write-up Competition (UG Category)**
Theme: AI, ML, IoT application in Petroleum industry/ Cyber Security in Energy Sector /Automation in Energy Sector

Certifications

• **IBM DevOps Fundamentals:** Certified in DevOps Fundamentals by IBM Career Education Program   Link
• **IBM Blockchain Developer**: Earned Blockchain Developer certification from IBM Career Education Program   Link