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 – 8.61 / 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

LeetCode : https://leetcode.com/u/KRITI_PORWAL/

GeeksForGeeks : https://www.geeksforgeeks.org/user/kriti11r9eu/

Projects

1) Image Generation using stable diffusion & Comfy UI

• Developed a custom tool using Python for data preprocessing in machine learning projects, reducing preparation time by 40 hours per month and streamlining the workflow for subsequent analysis tasks across teams.

• Integrated ComfyUI's node-based workflow, streamlining the image creation process, which reduced project turnaround time by 25% and improved overall team productivity across design initiatives by 15 hours per month.

• Engineered a robust AI pipeline utilizing Python and Stable Diffusion, resulting in processing speeds that improved data handling by 30%, enabling teams to finalize analysis tasks within tight deadlines.

2) AgroShield – AI-Powered Crop Disease Detection
• 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.

3) Real-Time Driver Drowsiness Detection System: 95%+ Accuracy Across All Conditions

• 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.

4) Breast Cancer Prediction Using Machine Learning

• Leveraged machine learning classification algorithms, including logistic regression and support vector machines, achieving an AUC-ROC score of 0.92 in predicting breast tumor malignancy.

• The dataset utilized in this project is sourced from the UCI Machine Learning Repository, and a simplified version is attached.

• The model with the greatest accuracy score of 98.245% is K-Nearest Neighbours.

• Led a team of 5 members, coordinating tasks and presenting findings to improve collaboration and model performance.

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.

Certificates

• **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

• **Google The Bits and Bytes of Computer Networking** Link