

Mridul Pandey

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Summary

To secure a position that leverages my technical and analytical skills in computer science, with a focus on machine learning, algorithmic problem-solving, and real-world project development.

Projects

Company Policy Chatbot – ML & NLP Project

02/2025 - 03/2025

Developed an interactive chatbot using machine learning (NLP) and Gradio to answer company policy queries with 95% response accuracy. Trained on over 500 policy entries, enabling employees to access instant answers and reducing HR query load by 40%. Showcased capabilities in UI design, natural language processing, and real-time inference.

Data-Driven Market Optimizer

12/2024 - 01/2025

Built a marketing optimization tool leveraging K-Means clustering, XGBoost, and RFM analysis to segment customers, predict churn, and personalize pricing. Improved targeting accuracy by 35% and optimized pricing strategies, increasing campaign ROI by 45%. Integrated A/B testing and attribution models to measure performance, demonstrating expertise in data analytics, machine learning, and marketing automation.

AI Fingerprint Detection

05/2024 - 07/2024

Architected a biometric verification system using Arduino and KNN that compared new thumb entries with over 100 stored fingerprints, detecting partial matches with 90% accuracy. The system alerts operators if a new input overlaps >75% similarity with existing data, reducing potential security breaches by 40%. Demonstrated strong skills in embedded programming, sensor integration, and machine learning-based classification.

Mini CNC Machine

12/2023 - 03/2024

Designed and built a compact CNC machine capable of cutting, drilling, and engraving on wood, plastic, and soft metals with ± 0.2 mm accuracy. Used Arduino, stepper motors, and G-code automation to create a fully functional 3-axis system. Achieved 60% cost reduction compared to market alternatives, demonstrating hands-on skills in mechanical design, embedded systems, and automated manufacturing.

Skills

Python, C, c++, DSA, oops, Database Management, SQL, Machine Learning, NLP, GitHub, Git, pytorch, Communication skills, Microsoft excel, Cloud Computing, Docker

Education

Uttar Pradesh Technical University

Electronics And Communication Engineering

Ranked consistently among high-performing students with core expertise in algorithm design, system logic, and applied computing. Completed formal training in Machine Learning through Coursera and built functional projects in natural language interfaces and AI-based automation. Regularly contributed to competitive coding and college-level hackathons with notable outcomes in solution accuracy and implementation speed.

Languages

English, Hindi