Vikas Pathak

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Education

VIT Bhopal University

09/2022 - Ongoing

Bachelor of Technology in Computer Science, 8.62 CGPA

Bhopal Madhya Pradesh

Coursework

Courses: OOPs, DSA, Discrete Math, Linear Algebra, Calculus, Probability & Statistics, DBMS, ML, OS, DBMS Certification: Cloud Computing NPTEL(2024), Bits and Bytes of Computer Networking, SIH certificate(2024), IBM

Cyber Security Analyst, Marketing Analytics NPTEL(2025), JLPT N5

Technical Skills

Languages:Python, Java, JavaScript, HTML/CSS Tools: GitHub, AWS, n8n

Frameworks: React, Node.js Libraries: pandas, NumPy, Matplotlib, PyTorch, OpenCV, Tensorflow

Projects

Emotion Detector Nov 2023

• Built a **Flask-based web application** for **facial emotion detection**, enabling users to upload images and receive real-time classification across seven emotional categories: happy, sad, angry, surprised, neutral, fear, and disgust.

- Integrated a pre-trained machine learning model to analyze uploaded images and **dynamically display emotion** confidence scores through an intuitive and responsive user interface.
- Ensured robust UX by implementing secure image upload (with file type and size validation) and crafting a **modern front end** using Flask templates (HTML/CSS/Vite/Tailwind), supporting seamless cross-device responsiveness.

Medical ChatBot Feb 2025

- Developed an **AI-powered medical chatbot** using Flask, LangChain, Pinecone, and LLMs for query understanding and response generation.
- Implemented **Docker-based containerization** for consistent development and production environments.
- Deployed the application on AWS EC2 with ECR integration ensuring scalable and reliable cloud hosting.
- Automated build and deployment using **GitHub Actions CI/CD workflows**, reducing manual intervention and improving release efficiency.

PDF QA System July 2025

- Automated PDF text extraction, semantic indexing using Astra DB, and implemented AI-powered QnA with Gemini LLM for document-based answers.
- Enhanced response quality by generating structured answers via LLM prompting and built an interactive user loop that reduces manual search and verifies sources for accuracy.

Experience

Tsuroni Ltd. — Israel

Apr 2025 – jun 2025

AI Workflow Automation Intern — Remote

- Developing and implementing AI Agent workflows on n8n to automate complex business processes and improve efficiency.
- Collaborating with teams to identify automation opportunities and integrate AI solutions for optimized operations.
- Built end-to-end systems that extract, analyze, and process data (e.g., invoices, emails, reports) with real-time updates and minimal human intervention.

Achievements

scored 89.88 percentile in JEE Mains 2021

solved 300+ questions on Leetcode