

# Vikas Pathak

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## Education

**VIT Bhopal University**  
*Bachelor of Technology in Computer Science, 8.62 CGPA*

**09/2022 – Ongoing**  
*Bhopal Madhya Pradesh*

## Experience

### Tsuroni Ltd. — Israel

Apr 2025 – Jun 2025

*AI Workflow Automation Intern — Remote*

- Architected and deployed complex AI agent workflows on **n8n** to automate critical business functions, including content creation, financial analysis, and data processing.
- Developed an end-to-end **SEO content pipeline** that performs automated keyword research, scrapes and analyzes top-ranking competitor articles, and generates complete, human-like blog drafts using a chain of LLM agents.
- Automated PDF invoice data extraction from emails to a relational Airtable using a Gemini agent.
- Engineered an automated **stock analysis** workflow that aggregates data from multiple financial APIs, performs technical analysis (RSI, MACD), analyzes news sentiment, and generates a comprehensive report for investment insights.

## 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.
- Trained ML model and integrated it 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, can process 50MB size.

### 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.

### Conversational AI Agent

Aug 2025

- Developed a conversational AI agent using LangGraph, Flask, and Python to handle product recommendations and order management queries.
- Implemented a state machine architecture with LangGraph to create a robust and scalable conversational workflow.
- Built a RESTful API with Flask to expose the AI agent's functionality to web applications and utilized JSON for efficient data exchange between the user interface and the AI agent.

## Technical Skills

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

**Libraries:** pandas, NumPy, Matplotlib, PyTorch, Tensorflow, LangChain, LangGraph

**Skills:** Agentic AI, RAG, Prompt Engineering, Problem Solving, SQL, NLP, LLM Fine Tuning, DSA

**Certification:** Cloud Computing NPTEL(2024), IBM Cyber Security Analyst(2025), Marketing Analytics NPTEL(2025), JLPT N5(2025)

## Achievements

- Solved 300+ questions on Leetcode
- Member of Student Internship Program under Bhopal Police 2024-2025
- Selected for SIH internal round(2024)