Kush K.

+91-9538049319 | Kushk41001@gmail.com linkedin.com/in/kushk-4p1001 Bhopal, Madhya Pradesh, India

Education

VIT Bhopal University, Bhopal, India

Bachelor of Technology in Computer Science

2022 - 2026

CGPA: 8.18/10

Technical Skills

Languages: Python, Java, SQL Backend: MySQL, FastAPI

Gen AI: LLMs, LangChain, LangGraph, AI automation, Ollama, RAG

ML/AI: OpenCV, OCR, Tesseract

Tools: Git, Docker, AWS

Experience

Project Intern Dec 2024 – Jan 2025

HCL Tech Remote

- \bullet Developed automated Excel-to-SQL data import system reducing manual data entry by 80%
- Engineered robust MySQL database architecture optimized for dashboard reporting and analytics
- Implemented comprehensive data validation and transformation pipelines for external file systems
- Created automated data preprocessing workflows ensuring data integrity and consistency
- Performed detailed data analysis and built reporting infrastructure for business intelligence
- Designed scalable database schema supporting real-time dashboard updates and queries

Projects

${\bf AdNova\ AI:\ Context-Aware\ Ad\ Recommender\ |\ LangGraph,\ LangChain,\ FastAPI\ \ Ongoing}$

AI-Powered Ad Recommendation System

- Developing AI-powered ad recommendation system using LangGraph and LangChain agents
- Building LLM-based agent to analyze webpage content and extract semantic context
- Implementing FastAPI backend for serving ad recommendations and basic click analytics

MCQ Generator | LangChain, Python, Ollama, RAG

Oct 2024 – Nov 2024

GitHub

AI-Powered Educational Content Generator

- Engineered intelligent MCQ generation system supporting PDF, DOCX, and text file formats
- Implemented RAG (Retrieval-Augmented Generation) pipeline for context-aware question creation
- Integrated LangChain with custom prompt templates for diverse question types and difficulty levels
- Optimized Ollama model inference achieving 3x faster response times through batching and caching
- Built intuitive web interface allowing educators to customize topics, difficulty, and question count
- Achieved 95% content accuracy with automated quality scoring and validation mechanisms

Parking Management System | OpenCV, OCR, Computer Vision

Mar 2024 – Apr 2024 *GitHub*

Computer Vision-Based Parking Solution

- Developed real-time ANPR (Automatic Number Plate Recognition) system with 96% accuracy
- Implemented advanced computer vision pipeline using OpenCV for license plate detection and extraction
- Integrated Tesseract OCR with custom preprocessing for enhanced text recognition in various lighting
- Built comprehensive parking management dashboard with entry/exit tracking and analytics
- Designed automated billing system with SMS/email notifications for seamless user experience
- Optimized image processing algorithms reducing detection time from 2.5s to 0.8s per vehicle

Leadership & Achievements

Core Member 2022 – Present

Null Student Chapter - Event Management Team

VIT Bhopal

- Organized and managed technical events and workshops for 200+ students
- Led event planning initiatives resulting in 40% increase in student participation
- Coordinated with industry experts for technical talks and mentorship sessions

1st Place Winner 2023

3x3 Rubik's Cube Solving Competition

VIT Bhopal

- Achieved 1st place with solving time of 55 seconds among 50+ participants
- Demonstrated problem-solving skills and pattern recognition abilities