

DEVANSH TRIPATHI

📍 Bhopal, India ✉ gitternat2331@gmail.com 🌐 zetroretron.github.io

SUMMARY

Seeking Data Science internships for Summer 2026 | Open to remote and on-site opportunities
Technical Writing: Maintain technical blog at zetroretron.github.io documenting project implementations

PROJECT

Hospital Management System | Full-Stack Web Application

IIT Madras Modern Application Development (MAD-1) Course Project • github.com/zetroretron/HMS_23f2004645

- Built healthcare management platform using Flask and SQLAlchemy, serving 3 user roles (Admin, Doctor, Patient) with appointment scheduling, medical records, and user authentication
- Designed appointment system with time slot validation across 7 weekdays and 6 daily slots, eliminating all double-bookings (reduced from 5-10 weekly conflicts to zero)
- Created normalized database schema with 5 interconnected tables following 3NF principles, complete with ER diagrams to ensure zero data redundancy
- Implemented secure authentication with bcrypt password hashing and role-based access control for 100+ test users.

AI-Powered Quiz Automation System | Machine Learning Project

IIT Madras Tools in Data Science (TDS) - Project 2 • github.com/zetroretron/llm-analysis-quiz-solver_TDS_Project_2

- Developed autonomous AI agent using OpenAI GPT-4 API to solve data analysis quizzes, achieving 90% accuracy (18/20 correct answers) and reducing solving time from 2 hours to 5 minutes
- Engineered prompt templates with chain-of-thought reasoning and JSON parsing, improving system reliability from 50% to 90% through error-handling logic
- Automated testing workflow with Playwright browser automation, validating 20+ quiz variations across CSV, JSON, and ZIP formats containing 10,000+ data records
- Analyzed datasets (customer orders, invoices, server logs) using Pandas and NumPy with statistical functions, data cleaning, and aggregations.

Multi-Platform CI/CD Pipeline | DevOps Automation

Personal Project - GitHub Repository Automation • github.com/zetroretron/ROE-Q6

- Configured GitHub Actions workflows with matrix build strategy to compile C++ applications in parallel across Windows, Linux, and macOS, reducing CI time from 15 minutes to 6 minutes (60% faster)
- Set up automated artifact management with version tagging and release generation, distributing binaries across 3 operating systems.

EDUCATION

Bachelor of Technology in Computer Science - Artificial Intelligence & Machine Learning

VIT Bhopal University • Expected May 2027

- Relevant Coursework: Machine Learning, Deep Learning, Data Structures & Algorithms, Computer Vision, Natural Language Processing, Database Management.

Bachelor of Science in Data Science | Diploma Level

Indian Institute of Technology (IIT) Madras • 2023 - Present

- Foundation Level Certified (2024) | Currently pursuing Diploma Level
- Relevant Coursework: Modern Application Development, Database Management Systems, Tools in Data Science, Statistics, Python Programming.

SKILLS

Python, SQL, JavaScript, Bash/Shell Scripting, HTML/CSS

Pandas, NumPy, Scikit-learn, TensorFlow, Matplotlib, Seaborn, Statistical Analysis, Feature Engineering, Data Cleaning, Exploratory Data Analysis

Flask, FastAPI, SQLAlchemy, RESTful APIs, Bootstrap, PostgreSQL, SQLite, Jinja2

AWS (EC2, S3, Lambda, RDS, VPC, CloudWatch), Docker, GitHub Actions, CI/CD Pipelines

OpenAI GPT-4 API, LLM Integration, Prompt Engineering, Playwright, Selenium

Git/GitHub, Jupyter Notebooks, VS Code, Linux/Ubuntu, Postman, C++

English, Hindi
