

# SIDDHARTH VERMA

## CONTACT

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📁 vermasiddhartha04

## EDUCATION

04/2025

**Bachelor of Technology -  
Computer Science & Engineering**  
Gurukul Kangri  
Vishwavidyalaya  
Haridwar, Uttarakhand

**Courses:** Data Structures,  
Algorithms, Software  
Engineering, UI & Web  
Technologies

09/2021

**Diploma - Electrical Engineering**  
  
Uttarakhand Board of  
Technical Education  
Haridwar, Uttarakhand

07/2020

**Senior Secondary - Physics,  
Chemistry, Mathematics**  
  
National Institute of Open  
Schooling (NIOS)

## Professional Summary

Results-driven Backend Developer at Patanjali Bharuwa Solutions, skilled in optimizing RESTful APIs and enhancing database performance. Proficient in Python and SQL, I excel in collaborative environments, leveraging critical thinking to implement AI-driven solutions and improve system scalability. Committed to delivering high-quality code and effective planning strategies.

## SKILLS

- Python and Java
- API development and RESTful APIs
- SQL and MySQL
- HTML and CSS
- Data analysis with NumPy and Pandas
- Data visualization with Matplotlib
- Version control with Git and GitHub
- Containerization with Docker
- Web frameworks: Flask and Node.js
- Express.js for server-side development
- Machine learning and AI chatbots
- Blockchain technology
- Live streaming with LiveKit
- Database management: SQLite
- Integrated development environments: VSCode and Jupyter Notebook
- Critical thinking and decision making
- Team collaboration in Agile environments
- Effective planning strategies

## EXPERIENCE

**Backend Developer** 08/2024 – 09/2024  
**Patanjali Bhartiya Solutions**

- **API Development:** Developed and optimized RESTful APIs using Flask & SQLAlchemy for improved backend performance
- **Queries Optimization:** Enhanced database query efficiency and reduced execution time
- **Microservices:** Debugged and optimized existing micro-based services, improving system scalability

# WEBSITES, PORTFOLIOS, PROFILES

vermasiddhartha04

- AI Solutions: Collaborated on AI-driven automation solutions using LiveKit and WebSockets
- Version Control: Utilized Git & GitHub for version management

## PROJECTS

### Crop Recommendation System

Created a web-based machine learning program that uses HTML, Flask, and SQLAlchemy to forecast the best crops based on weather and soil. Designed an interactive user interface and integrated SQLite for effective data management. Achieved a 95% crop prediction accuracy rate with enhanced machine learning algorithms, improving agricultural decision-making

### Self Diary AI

A customized notebook based on artificial intelligence has been created to help with communication. It can recognize voice commands in Hindi and English. Natural language processing (NLP) has been used to comprehend and identify user inputs in order to enable automated event storage and recall, as well as to provide a personalized and intelligent diary experience.

### Voice-Controlled Laptop Assistant

Developed a global AI-powered voice assistant with recognition of speech and natural language processing (NLP), allowing for the generation of unique voice commands for automated tasks, application launch, and system control. By streamlining executing commands and response processing, 82% accuracy in voice recognition was attained, enabling soft hands-free relationship as well as successful laptop operation.

## HONORS AND CERTIFICATIONS

- 3+ Certifications in Python Programming, Full-Stack Web Development, and Artificial Intelligence
- Comprehensive training through online learning platforms including Coursera and Udemy
- Advanced expertise demonstrated in Software Development, Machine Learning, and Web Technologies

## SKILLS SUMMARY

### Programming & Tools:

Python, SQL, HTML, Java (Intermediate), NumPy, Pandas, Seaborn, Matplotlib, SQLAlchemy, NLTK, Flask, Node.js, React.js, Express.js, TensorFlow, PyTorch, Git, GitHub, Postman, Docker, MATLAB, Google Colab, Render, ChatGPT, LiveKit, Blockchain

### Technologies:

Machine Learning, REST APIs, MySQL, PostgreSQL, SQLite, VSCode, Google Colab, Jupyter Notebook, Data Visualization, API Development, Web Scraping

### Soft Skills:

Critical Thinking, Team Collaboration, Agile Development, Decision Making, Effective Planning