

# Vaibhav Gupta

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## Professional Summary

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AI and Software Engineering student with solid foundation in computer science, programming, and machine learning. Pursuing dual degrees - BTech in Computer Science and BS in Data Science with project experience in web development and ML. Seeking entry-level opportunities in AI and software development.

## Experience

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### Space Tech Entrepreneur Intern – India Space Lab

- Completed 45-day intensive training in drone technology, satellite systems, rocketry, and space astronomy applications
- Developed autonomous mission control system with ESP32, real-time telemetry, and embedded C programming for IoT applications

## Education

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### Vellore Institute of Technology, B.Tech in Computer Science (IoT)

CGPA: 9.3/10

### Indian Institute of Technology, Madras, BS in Data Science

CGPA: 8.6/10

### Air Force Golden Jubilee Institute, High School Diploma (Engineering)

Grade: A+

## Projects

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### Autonomous Mission Control System for Small Satellite Operations

- Developed IoT-based mission control system simulating complete CanSat operations with DHT22 sensors and real-time telemetry
- Implemented automated mission phase management with emergency abort capabilities and continuous atmospheric data logging

### Dish Dynamics - VIT Mess Manager

- Full-stack web app for mess operations with food preference tracking, waste analytics, and efficiency improvements
- Tech: React, Flask, MongoDB, HTML/CSS/JS

### Tower of Hanoi - Interactive Web Game

- Interactive React game with drag-and-drop, dynamic disk scaling, and audio-visual feedback (CS50x project)
- Tech: React, JavaScript

## Technical Skills

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**Languages:** Python, C++, Java, C, JavaScript

**Aerospace:** Mission Control Systems, UAV Programming, Satellite Systems, OpenRocket, SolidWorks, ANSYS

**Embedded Systems:** ESP32, Arduino, IoT Sensors, Real-time Programming, Embedded C

**Data Science:** SQL, Data Analytics, Data Engineering, Azure, R Programming

**Machine Learning:** Regression, Classification, NLP, Anomaly Detection

**Web Development:** HTML, CSS, JavaScript, Flask, React.js

**Cloud:** Microsoft Azure

**Tools:** ROS2, Gazebo, Mission Planner, GIS Software, Wokwi

## Certifications

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Machine Learning Specialization (Coursera)

CS50x (Harvard)

Microsoft Applied Skills: Data Science & ML (Fabric)

Azure Data Scientist Associate (Microsoft)

Microsoft Applied Skills: NLP with Azure AI

Python (HackerRank)