

Vishal Sharma

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## **Professional Summary**

Detail-oriented and performance-driven Software Development Engineer with strong academic and hands-on experience in developing testable, maintainable software solutions. Skilled in Python, JavaScript, and IoT systems, with demonstrated success in building full-stack applications, real-time monitoring systems, and deploying machine learning solutions. Adept at writing secure and scalable code with a focus on quality, automation, and testing best practices. Passionate about contributing to robust test frameworks and ensuring software reliability at scale. Experienced in launching end-to-end customer-centric products in fast-paced environments, collaborating cross-functionally with teams, and contributing to product strategy and operational excellence.

## **Technical Skills**

- **Languages:** Python, JavaScript, Java, C, Go, SQL, HTML, CSS
- **Frameworks & Libraries:** FastAPI, Streamlit, Flutter, NumPy, Pandas, Scikit-learn, OpenCV, Matplotlib, Seaborn, Flask
- **Testing & Automation:** Unit Testing, Automation Scripts, Firebase Real-time Testing, Test Planning
- **Databases:** PostgreSQL, Firebase, SQLite, DBMS
- **Cloud & Deployment:** Google Cloud Platform (GCP) (implied from Firebase), Cloud Concepts
- **Tools & Version Control:** Git & GitHub, Jupyter Notebook, VS Code, Figma, Spyder
- **Core Concepts:** Data Structures & Algorithms (DAA), REST APIs, Exploratory Data Analysis (EDA), Regression & Classification, Data Wrangling, Predictive Modeling, Version Control, Computer Networks, Operating Systems (OS), Blockchain, Computer Science Engineering Fundamentals.
- **Technologies:** IoT, Machine Learning, Web Development, Cloud Integration, Robotic Process Automation (RPA), Network Security, 3D Modeling

## **Education**

### **Bachelor of Technology (B.Tech) in Computer Science & Engineering**

MMDU, Mullana | 2021 – 2025 | CGPA: 7.12

### **Class XII (Senior Secondary)**

D.S. Inter College, Saharanpur | 2021 | Percentage: 78%

### **Class X (Secondary)**

D.S. Inter College, Saharanpur | 2019 | Percentage: 81%

## **Projects**

### **1. Angrakshak — Smart Soldier Suit**

Python, IoT, Firebase, SQL, Network Security

- Built a real-time health and hazard monitoring suit using IoT sensors and Firebase.
- Integrated AI-powered chatbot and data pipeline for mission-critical safety.
- Worked closely with a multi-functional team to define feature scope and delivery timelines.

### **2. HEARTSYNC — Heart Disease Prediction System ([GitHub](#))**

Python, Pandas, Scikit-learn, Matplotlib

- Achieved 96% model accuracy using Random Forest.
- Utilized EDA and heatmaps to identify key medical indicators.
- Validated outputs with visualizations and real patient data patterns.

### 3. Agronic — Smart Irrigation System ([GitHub](#))

Flutter, Firebase, IoT Sensors

- Developed a mobile-controlled automated irrigation system with soil moisture sensors.
- Real-time data syncing enabled water-saving decision-making.
- Launched and maintained end-to-end solutions using Firebase and Flutter, replicating production-grade deployment

### 4. Health Prediction System (Web App) ([GitHub](#))

Streamlit, Scikit-learn, Firebase

- Built ML models with hyperparameter tuning for user-friendly health risk predictions.
- Deployed via Streamlit with Firebase as backend.

### 5. Planate Simulator — 3D Planetary Motion Tool ([GitHub](#))

Python with 3D Graphics Framework

- Created a planetary simulator to visualize real-time motion and rotation.

## Certification

- Supervised Machine Learning by Andrew Ng, Coursera ([Link](#))
- Python for Data Science and AI – Udemy ([Link](#))

## Achievements

- **Grand Finalist**, Hardwar Hackathon (UPES)
- **Top 5**, Poornima Hackathon
- **Participant**, Technoxian World Robotics Championship
- **5th Place**, ITS Innocodeathon

## Leadership & Extracurricular Activities

- **Core Member** – Robotronics Club (2022–2023): Organized data analysis and ML bootcamps.

**Fresher's Coordinator** – Robotronics Club (2022): Helped juniors build their first analytical dashboards.

## Interests

- Software Testing & automation
- IoT & Embedded Systems
- Machine Learning
- Backend Systems
- Scalable Architecture
- Cloud Technologies (GCP/AWS)