

# VAIBHAV KUMAR

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## Education

### VIT Bhopal University

B.Tech in Computer Science CGPA: 9.43

September 2023 – May 2027

Bhopal, MP, India

### St. Gregorios Sr. Sec. School

Class 12: 94.6% — Class 10: 94.0%

April 2018 – March 2023

Udaipur, Rajasthan, India

## Work Experience

### AlgoUniversity (YC S21)

May 2025 – July 2025

SWE Co-Op Intern

Remote

- Engineered a scalable **Online Judge platform** using **Django**, **HTML/CSS**, and **SQLite3**, containerized with **Docker** and deployed on **AWS EC2**.
- Orchestrated a secure code execution engine leveraging Python's **subprocess** module and **container isolation**, supporting Python, C++ and Java with **100+ daily code submissions**.
- Implemented **real-time output evaluation**, role-based access control, **reducing manual grading time by 80%**.
- Built admin dashboards for real-time metric tracking and role management, reducing support queries by 25% and improving admin efficiency.
- Streamlined **CI/CD pipelines** with **GitHub Actions** and **Docker** for continuous testing and deployment; boosted deployment frequency by **40%** through automated testing and rollouts.

### Madhya Pradesh Police - Student Intern

October 2024 – Present

Bhopal, India

Part-time

- Selected for SIP 2025; collaborated with the Cyber Crime Cell, Forensic Unit, and Dial 100 HQ to observe real-time tools and strategies used in cybercrime investigations.
- Delivered cybersecurity awareness sessions to 300+ students and faculty at schools like Delhi World Public School, covering phishing, SIM swap, ATM fraud, and safe online behavior.
- Participated in open-house sessions with senior officials (IPS, AIGP), researched 10+ digital threats, and contributed to posters, surveys, and outreach campaigns promoting public digital safety.

## Projects

### HridayVayu – Smart Asthma Care System

February 2025

**Tech Stack:** Python (Flask), Machine Learning, Sensor Integration

- Developed an AI-based asthma prediction system using ML and IoT sensors, achieving 87% accuracy in early-stage detection
- Implemented real-time alert system and analytics dashboard for early detection and patient monitoring, reducing average asthma detection latency by **30%**.

### CyberBuddy – AI Cybersecurity Chrome Extension

February 2025

**Tech Stack:** Python, Google Gemini API, Chrome Extension API, ML, HTML/CSS

GitHub

- Built a phishing detection Chrome extension using Google Gemini API; achieved over 95% detection accuracy across 1,000+ URLs/day.

### Father's Advice – Mentor Matching Platform

September 2024

**Tech Stack:** Python (Flask), SQL, HTML/CSS, JavaScript, Graph Algorithms

- Formulated a graph-based mentor-mentee matching algorithm, increasing pairing accuracy by **30%**.
- Created a scoring model that enhanced recommendation precision by 25%, increasing successful mentor matches.

## Technical Skills

- Languages & Frameworks:** Python(Django, Flask, Tkinter), C++, Java, HTML, CSS
- Tools:** Docker, Git, Postman, VS Code, Jupyter Notebook, Google Gemini API
- Databases & Cloud:** MySQL, SQL, AWS

## Certifications

- AWS** - Certified Cloud Practitioner (CLF-C02) – Score: 837/1000 (February 2026)
- Oracle** - Java Certified Foundations Associate (July 2025)
- IBM** – SQL and Relational Databases 101 (March 2025), Python 101 for Data Science (March 2025)
- Finlatics** – Data Science with Python (February 2025) – Finlatics Data Science with Python (February 2025)

## Co-Curricular

### Cisco Community, VIT Bhopal

November 2024 – Present

Core Technical Member

- Organized hands-on workshops and collaborated in multi-functional development teams.

## Honors & Awards

- Spearheaded top **1.4%** selection among **40,000+** applicants for **AlgoUniversity Accelerator** (May 2025)
- Selected for elite Graph Algorithms Bootcamp by Codeforces Master (Mar 2025)
- Achieved Top 3 rank in Class XII (CBSE, 2023) with **94.6%** in PCM stream