

# VAIBHAV KUMAR

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## Education

### VIT Bhopal University

B.Tech in Computer Science CGPA: 9.40

September 2023 – May 2027

Bhopal, MP, India

### St. Gregorios Sr. Sec. School

Class 12: 94.6% — Class 10: 92.0%

April 2018 – March 2023

Udaipur, Rajasthan, India

## Work Experience

### AlgoUniversity (YC S21)

SWE Co-Op Intern

June 2025 – Present

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%**.
- Fabricated custom admin dashboards for monitoring platform metrics and managing roles, enhancing maintainability.
- 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

Bhopal, India

October 2024 – Present

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

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

February 2025 – Present

- Devised an AI-powered asthma prediction system leveraging ML and sensor integration.
- 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

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

February 2025

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

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

September 2024 — Present

- 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:** Python, C++, Java, HTML, CSS
- Frameworks:** Django, Flask, Tkinter
- Tools:** Docker, Git, Postman, VS Code, Jupyter Notebook
- Databases & Cloud:** MySQL, SQL, AWS
- Data & AI Tools:** NumPy, Pandas, Matplotlib, Google Gemini API
- Concepts:** DSA, OOP, REST APIs

## Certifications

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- **Oracle** - Java Certified Foundations Associate (July 2025)
- **Postman** – API Fundamentals Student Expert (July 2025)
- **IBM** – SQL and Relational Databases 101 (March 2025)
- **IBM** – Python 101 for Data Science (March 2025)
- **Finlatics** – Data Science with Python (February 2025) – Finlatics Data Science with Python (February 2025)
- **Coursera** – Bits and Bytes of Computer Networking (November 2024)

## Co-Curricular

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### Cisco Community, VIT Bhopal

November 2024 – Present

*Core Technical Member*

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

### Deloitte Australia – Forage Virtual Internship

June 2025

*Data Analytics Simulation*

- Completed a professional case simulation involving **forensic data analysis** and **business intelligence**.
- Analyzed financial data using Excel and created Tableau dashboards.
- Achieved 90%+ accuracy in forensic classification of transactions.

## Honors & Awards

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- 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

## Extras

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**Languages:** Hindi (native), English (fluent), learning Japanese & German

**Hobbies:** Actively exploring emerging technologies like AWS and DSA; enjoy strategic gaming (Clash of Clans - TH12) and sci-fi/thriller films (e.g., Interstellar)