

# Vaibhav Kumar

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## EDUCATION

**VIT Bhopal University** — B.Tech in Computer Science & Engineering  
CGPA: **9.40**  
**St. Gregorios Sr. Sec. School**  
Class 12: **94.6%** | Class 10: **92.0%**

Bhopal, Madhya Pradesh, India  
**September 2023 – May 2027**  
Udaipur, Rajasthan, India  
**April 2018 – March 2023**

## WORK EXPERIENCE

**AlgoUniversity (YC S21) - SWE Co-Op Intern**  
**Project: SOURCE CODE (Online Judge Platform)**

*Remote | June 2025 – Present*

- Designed and deployed a scalable **Online Judge platform** using **Django**, **HTML/CSS**, and **SQLite3**, containerized with **Docker** and hosted on **AWS EC2**.
- Developed a secure code execution engine leveraging Python's **subprocess** module and **container isolation**, supporting Python and C++ with **100+ daily code submissions**.
- Integrated **real-time output evaluation**, role-based access control, and custom admin dashboards for platform management.
- Collaborated with senior engineers from **Google London**, **Apple**, **ByteDance**, and **Alphagrep Singapore**, applying mentorship to enhance backend architecture and system design.
- Implemented **CI/CD pipelines** with **GitHub Actions** and **Docker** for continuous testing and deployment. Improved deployment frequency by **40%**.

## 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  
**Others:** Data Structures & Algorithms (DSA), OOP, REST APIs

## CERTIFICATIONS

**Oracle** – Java Certified Foundations Associate (July 2025)  
**Postman** – Postman API Fundamentals Student Expert (July 2025)  
**IBM** – SQL and Relational Databases 101 (March 2025)  
**IBM** – Python 101 for Data Science (March 2025)  
**Finlatics** – Finlatics Data Science with Python (February 2025)  
**Coursera** – Operating Systems and You: Becoming a Power User (November 2024)  
**Coursera** – The Bits and Bytes of Computer Networking (November 2024)

## PROJECTS

**HridayVayu – Smart Asthma Care System**

*February 2025 – Present*

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

- Developed an AI-powered health monitoring system that predicts asthma attacks using real-time sensor data and machine learning models.
- Integrated real-time risk alerts and analytics dashboards to assist patients and healthcare professionals in early detection.

**CyberCops – AI Cybersecurity Chrome Extension | SOURCE CODE**

*February 2025*

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

- Built a Chrome extension that identifies phishing websites with **95%+ accuracy**, scanning over **1,000 URLs per day** using Google Gemini API.
- Implemented an anomaly detection algorithm that reduced false positives by **40%**, improving user trust and alert precision.

**Father's Advice – Mentor Matching Platform**

*September 2024 – Present*

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

- Designed a mentor-mentee matching engine using weighted bipartite graph algorithms, increasing match accuracy by **30%**.
- Built a dynamic scoring model based on user skills, experience, and preferences, improving engagement and success rate by **25%**.

**Full Stack Practice Website | SOURCE CODE | WEBSITE LINK**

*Ongoing*

**Tech Stack:** Flask, HTML/CSS, JavaScript, MySQL

- Developed a secure, responsive full-stack application with **JWT-based authentication** and session management.
- Designed RESTful APIs and integrated MySQL for efficient data handling and user account operations.

**Text Editor (GUI Application) | SOURCE CODE**

*January 2023 – February 2023*

**Tech Stack:** Python, Tkinter

- Built a Python-based desktop text editor using Tkinter, supporting real-time editing and OOP-based modular architecture.
- Applied **OOP principles** and event-driven programming to build a stable and interactive GUI.

## CO CURRICULAR

**Core Technical Member (Cisco Community, VIT Bhopal)**

*November 2024 – Ongoing*

- Organized workshops and participated in collaborative dev projects.
- Enhanced cross-functional teamwork and real-world dev practices.

**Deloitte Australia Data Analytics Job Simulation (Forage)**

*June 2025*

- Completed a professional case simulation involving **forensic data analysis and business intelligence**.
- Built a **dynamic Tableau dashboard** to visualize financial anomalies and insights.
- Applied Excel formulas and filters to classify transactional data and derive business conclusions with **90%+ accuracy**.

## HONORS & AWARDS

- Selected among the top **1.4% of 40,000+ applicants** in **AlgoUniversity Accelerator Camp (May 2025)**
  - Handpicked from **40,000+ Indian** applicants to attend **elite Graph Algorithms bootcamp** by **Codeforces Master (Mar 2025)**
  - Ranked **Top 3** in PCM stream with **94.6%** in **Class XII (2023 CBSE Board)**
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## EXTRAS

- **Hobbies:** Passionate about **learning emerging technologies** (currently exploring DSA and **AWS**), **competitive strategy** gaming (Clash of Clans – TH12), and sci-fi/thriller films (favourites include *Interstellar*).
- **Languages:** Fluent in Hindi and English; currently learning **Japanese**, German.