

# Yash Singh

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## TECHNICAL SKILLS

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**Languages:** C++, MySQL, Java, Python, HTML, CSS, PISQL, Shell Scripting

**Developer Tools:** GitHub, VS Code, VMWare Workstation, VirtualBox, Docker, Wireshark, PyCharm

**Additional Skills:** Linux, Arduino, ESP32, Matplotlib, Tkinter, Automation, Microsoft Suite, Power BI

**Relevant Coursework:** Data Structures, Computer Architecture, Networking, Operating Systems, OOPs, DBMS

## PROJECTS

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### AutoSyncHaus | *Python, Raspberry Pi, Arduino, OpenCV, MQTT*

*Nov 2024 – Mar 2025*

- Built an IoT home automation system using Raspberry Pi and Arduino, enabling real-time wireless control of 10+ smart devices via Wi-Fi.
- Scaled system to support 30+ devices with an Email Alert System processing 500+ alerts/month, ensuring robust IoT deployment across residential and industrial use cases.
- Secured data communication via MQTT with error handling, achieving 99.9% reliability in message delivery.
- Implemented sensor-driven automation and a facial recognition Smart Door Security System using OpenCV, increasing energy efficiency by 30%, reducing manual effort by 80%, and achieving 98% access control accuracy.

### TrackMyFunds | *Python, Tkinter, MySQL*

*Feb 2025 – May 2025*

- Built a finance tracker with 20+ interactive Tkinter UI components, allowing users to record over 1,000 transactions per month.
- Implemented JWT-based authentication and role-based access control, reducing unauthorized access incidents by 90%.
- Architected real-time spending tracker with Tkinter UI, processing 1,000 monthly transactions; personally wrote 500+ lines of code and maintained 99.9% uptime during the project's lifecycle.
- Optimized MySQL queries and Python backend for efficient CRUD operations, enhancing performance and reducing data lag by 45%.

### SmartFill Pro | *Python, Raspberry Pi, IoT, SMTP*

*Feb 2024 – Apr 2024*

- Engineered an automated water level controller powered by Raspberry Pi and ultrasonic sensors, reducing manual intervention by 95%.
- Integrated 8-segment LED display, multi-color indicators, and buzzers for real-time status feedback, improving response speed by 40%.
- Programmed GPIO-controlled valve system with 99% fluid regulation accuracy through real-time monitoring.
- Designed fault-tolerant architecture for 24/7 uptime, ensuring 99.8% availability and reducing maintenance effort by 60%.

## EXTRA-CURRICULAR

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- **Core Member, GeeksforGeeks Club** Led social media campaigns and technical outreach, increasing online engagement by 40% through strategic content planning and event promotion.
- **University Chess Representative** Competed in inter-university tournaments, applying advanced strategic reasoning under pressure. Coordinated 5+ intra-college events, demonstrating leadership and collaboration.
- **Event Volunteer, Foragers – D2C Club** Managed logistics and on-site execution for an event with 200+ attendees, ensuring smooth operations and real-time issue resolution.
- **Advent of Cyber 2023 – TryHackMe** Mastered cybersecurity principles by completing 25+ hands-on challenges involving penetration testing and vulnerability identification, enhancing skills in real-world security scenarios.

## EDUCATION

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### VIT Bhopal University

Bhopal

*Bachelor of Technology in Computer Science and Engineering – CGPA: 8.90*

*Nov 2022 – Present*

### YMCA Centenary School & College

Prayagraj

*High School Graduate(12<sup>th</sup>) – 84.4%*

*2021*

### YMCA Centenary School & College

Prayagraj

*Secondary School Education (10<sup>th</sup>) – 91.0%*

*2019*