

# RACHIT TANWAR

<https://curious-cat.pages.dev>

[✉ rachittanwar7124@gmail.com](mailto:rachittanwar7124@gmail.com)

[in linkedin.com/in/rachit-tanwar](https://www.linkedin.com/in/rachit-tanwar)

[github.com/Rachit-Tanwar](https://github.com/Rachit-Tanwar)

## Education

---

### Chandigarh Engineering College, CGC Landran

*Bachelor of Technology in Computer Science*

**Aug. 2023 – Present**

*Mohali, Punjab*

### Kendriya Vidyalaya No. - 3

*XII*

**2021 – 2022**

*Delhi Cantt., Delhi*

## Projects

---

### VulnScan | *Python*

- Created an automated vulnerability scanner in Python to identify security weaknesses in local environments, focusing on open ports, outdated services, and system misconfigurations.
- Integrated networking libraries and APIs to perform service fingerprinting and cross-reference identified services against known CVE databases for real-time risk assessment.
- Built a modular scanning engine that allows for extensible security checks, including credential strength testing and network based vulnerability detection using multithreading for increased speed.

### Papyrus | *C*

- Developed a lightweight terminal based text editor from scratch in C, utilizing low-level system calls and standard VT100 escape sequences to manage terminal I/O and screen redrawing.
- Implemented core editing features including real-time cursor navigation, text insertion, deletion, and file I/O operations, ensuring high performance and minimal memory overhead.
- Managed terminal state and raw mode configuration using termios to handle keyboard events and signals, providing a seamless user interface in the terminal.
- Optimized data handling by implementing efficient string manipulation and buffer management techniques to handle multi-line text files effectively.

### Keeb | *Python, Curses, Tabulate*

- Developed a terminal-based Typing Speed Test application using Python and curses for real-time, text-based user interaction.
- Created a CSV-based history log storing test results (WPM, accuracy, mistakes, etc.), with a built-in history viewer using the tabulate library.
- Integrated clean retry logic, CLI prompts, and tabular result presentation to enhance user experience.
- Implemented WPM, accuracy, mistake tracking, and dynamic timing with user-selectable time limits (15, 30, 60 seconds).

## Technical Skills

---

**Languages:** Python, C, C++, Go, HTML, CSS, SQL, Bash

**Technologies/Frameworks:** Linux, MySQL, SQLite, Flask, Ollama, Langflow

**Developer Tools:** Neovim, Git, Github

## Certifications

---

- Python for Data Science - NPTEL
- Automate the Boring Stuff with Python Programming
- Rust for Beginners

## Leadership / Extracurricular

---

### Delhi Chess Club

**2022 – Present**

*Co-admin*

- Manage an online chess club of 200+ members.
- Manage and organize monthly online chess tournaments on lichess.org
- Manage and organize frequent physical offline meet-ups.