Mayank Vats

📞 +91 8375821503 ✉️ MayankVats1@proton.me 🔗 [LinkedIn](#) 🐙 [Github](#)

Education

Netaji Subhas University of Technology, Delhi	**2022 - 2026**
Bachelor of Technology in Mathematics and Computing	*8.85/10 CGPA*
Springdales School, Delhi	**2009 - 2021**
Class X(CBSE): 93.8%	*Class XII(CBSE): 96.4%*

Technical Skills

Languages: Python, C++, C, Bash
Backend: Django, Flask, Authentication management
Frontend: HTML, Bootstrap, Client side Cryptography *(Web Crypto API)*
Databases: MySQL
Automation: Web Scraping using Selenium and URLlib, General python scripting
Computer Science: Working Knowledge of various Data Structures and Algorithms

Projects

Waltz: A cloud based password manager   [**Source Code**](#)
- Developed an open-source, cloud-based password manager using **Flask** and **MySQL.**
- Implemented 2-factor authentication protection and CSRF protection.
- [Documentation](#)

AuthAlpha: Authenticaion Manager   [**Source Code**](#)
- Created a Python abstraction to generate and authenticate hashes of passwords and files with over [9000 Downloads on PyPI.](#)
- Designed as a drop-in replacement for Werkzeug, incorporating advanced algorithms like argon2, Bcrypt, and Scrypt. Provides an easy abstraction over usually tricky TOTPs.

MySQL Wrapper   [**Source Code**](#)
- A wrapper around the MySQL cpp connector.
- Used by classmates during the DBMS course.
- Provides a safer and more efficient interface for developers to interact with MySQL servers.

PyCourier   [**Source Code**](#)
- Developed a fast, reliable and cross platform email package for Python, achieving nearly [2000 Downloads on PyPI.](#)
- This project was born of the need for a python package to send emails that can deal with attachments. Unable to find any suitable packages, I wrote one myself.
- The script can send any number of attachments and also encrypt them with a given key.

Personal Website   [**Source Code**](#)
- A website written in the Flask framework, dynamically rendered using Jinja2.
- Authentication managed by AuthAlpha and PyCourier packages.
- A complete blog engine with the help of TineMCE WYSIWYG editor. MySQL is used as the backend database. Database choice is hot-swappable.

Regression to Predict AQI   [**Source Code**](#)
- Started under IBM SEWA program. The only project selected by IBM for further development among 20 projects pitched. Progress was halted because of COVID 19.
- Proof of concept using a single input variable: [SimpleLinearRegression](#)
- Project will be shifted to a multi-layered perceptron model in the future: [nn.h](#)

Extra Curricular Activities

- Distributed Rations and spread awareness about fire hazards and common diseases in various villages on the outskirts of Delhi as a part of SUPW program in my school
- Was a part of college's drama society **Ashwamedh**. Helped with the auditioning process ans the hosting of its flagship event **Parwaaz**.
- Was a part of my school's drama community, took part in various plays.