# NILAY VATSAL

Hyderabad, Telangana

#### **EDUCATION**

# International Institute of Information Technology, Hyderabad

M. Tech. in Computer Science and Information Security

August 2024 – June 2026

 $Hyderabad,\ India$ 

Bharati Vidyapeeth(DU) Department of Engineering and Technology

Nov 2020 - June 2024 Mumbai, Maharashtra

Computer Science and Engineering (B. Tech) - CGPA - 9.33

Experience

## Finzie by Samwaad

Software Developer Intern

July 2023 - August 2023

Remote

- Implemented prototype's backend system using Flask, capable of supporting up to 100 concurrent users.
- Updated database models and increased efficiency of queries by 30%.
- Improved authentication by using Flask Session modules and reduced login faults by 50%.

#### **PROJECTS**

## Nimble Shell | C++

August 2024

- Implemented a UNIX shell from scratch in C++ with core functionalities.
- Developed features including command history, process management, I/O redirection, and piping.
- Designed a modular architecture to handle complex user inputs, ensuring robust error handling and signal management.

# Skill Sync | Java, Android Studio, SQLite

March 2024

- Developed an Android app for students to take quiz, receive course recommendations, connect with alumni.
- Implemented RecyclerView for efficient display and management of dynamic content.
- Integrated SQLite for local database management, ensuring efficient data storage and retrieval.
- Designed intuitive user interfaces using XML to enhance user experience.

### Grocery Store App | Flask, Flask - Restful, Flask-SQLAlchemy, SQLite3

**April 2023** 

- Architected a web application using Flask that offers users the ability to add as well as purchase products. Application supports 2 roles, Users and Admins.
- Implemented a secure login system using Flask sessions module, reduced authentication error by 70 %
- Utilized SQLite3 and Flask-SQLAlchemy. Query time reduced by 30%
- Developed a RESTful API, utilizing Flask-RESTful to facilitate CRUD operations on product data.

#### TECHNICAL SKILLS

C/C++, Python, Java, SQL, HTML5/CSS, Git/Github, Linux, Flask, OOPS, OS, DBMS, Android Studio

#### **ACHIEVEMENTS**

## **GATE Exam**

- GATE 2024 98.5 percentile
- GATE 2023 96.5 percentile

#### Competitive Programming

- Pupil at Codeforces (Max rating: 1322)
- 3 Star at Codechef (max rating: 1686)