
Detail-oriented Computer Science undergraduate with hands-on experience designing and developing scalable RESTful APIs using Python and Flask. Strong foundation in backend system design, relational databases, and JWT-based security. Proven ability to build clean, modular, and production-ready services with a focus on data integrity, access control, and reliability. Actively involved across the full software development lifecycle(SDLC), from schema design to API testing and version control.

SKILLS

Programming & CS Fundamentals: Python (Core, OOP), Data Structures, Exception Handling, Input Validation

Backend & System Design: RESTful API Design, Flask (Blueprints, MVC Architecture), Modular Backend Design

Databases & Data Modeling: MySQL, SQLite — CRUD Operations, Indexing, Normalization, Relational Schema Design

Security & Authentication: JWT-based Authentication and Authorization, Password Hashing, Access Control

Quality & Reliability: Centralized Error Handling, API Validation, Proper HTTP Status Codes, Logging

Tools & SDLC: Git, GitHub, Postman (API Testing), VS Code

PROJECTS

Task Management REST API | Python, Flask, SQLite, JWT

[Github link](#)

- Designed and developed a **user-scoped RESTful API** supporting full CRUD operations for task management with strict data ownership enforcement.
- Implemented **JWT-based authentication and authorization** using Flask Blueprints and MVC architecture to ensure secure, modular, and scalable backend design.
- Improved API reliability by enforcing **centralized error handling, strict input validation, normalized relational schema**, and consistent HTTP response standards.

User Authentication & Profile Management API | Python, Flask, MySQL

[Github link](#)

- Built a **secure authentication and profile management system** exposing REST APIs for user registration, login, and profile updates.
- Implemented **password hashing and JWT-based token authentication** with authorization-aware CRUD operations backed by a normalized MySQL schema.
- Ensured robustness by handling **invalid credentials, duplicate registrations, and unauthorized access attempts**, validated through extensive Postman testing.

URL Shortener REST API | Python, Flask, SQLite

[Github link](#)

- Developed a **high-performance URL shortening service** capable of generating unique short codes and handling HTTP redirection efficiently.
- Designed a **constraint-driven relational schema** with uniqueness guarantees and implemented redirection logic using proper HTTP status codes.
- Added **analytics tracking** for access count and creation timestamps while gracefully handling invalid or non-existent short URLs.

EDUCATION

BTech in Computer Science and Engineering, *Karunya Institute of Technology and Sciences*

2022 - 2026