

Ayush

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EDUCATION

Thapar Institute of Engineering & Technology (TIET)
Bachelor of Technology in Computer Engineering | CGPA: 9.78 / 10

Patiala, Punjab
Expected Graduation: 2028

PROJECTS

LMS Backend System | *Node.js, Express.js, TypeScript, PostgreSQL, Prisma, Zod, JWT* | GitHub

- Developed a RESTful backend for a Learning Management System using Express, TypeScript, PostgreSQL, and Prisma ORM.
- Implemented **role-based access control (RBAC)** for STUDENT and INSTRUCTOR workflows using JWT authentication and authorization middleware.
- Designed a relational database schema supporting courses, lessons, enrollments, and **lesson completion tracking** with integrity constraints.
- Structured the application using a **layered architecture** with controllers, services, validators, and middleware to improve maintainability and scalability.

Notes App | *React, TypeScript, Node.js, Express.js, PostgreSQL, Prisma, Tailwind CSS* | GitHub

- Built a full-stack note management application using React, Express, PostgreSQL, and Prisma with a **RESTful client-server architecture**.
- Implemented **JWT-based authentication** and protected API routes using custom Express middleware.
- Designed and integrated a PostgreSQL database schema with **Prisma ORM** to support efficient CRUD operations on user-owned notes.
- Added schema-based request validation using **Zod** to ensure type-safe and reliable API interactions.

TODO App | *MongoDB, Express.js, React, Node.js* | GitHub

- Built a full-stack task management application using the **MERN stack** with a REST-based client-server architecture.
- Implemented complete **CRUD functionality** for task creation, updates, deletion, and status management.
- Managed frontend state and asynchronous API interactions using **React Hooks** and component-based architecture.
- Integrated MongoDB for persistent storage and Express APIs for handling business logic and data access.

TECHNICAL SKILLS

Languages: TypeScript, JavaScript, SQL, C++

Frontend: React.js, Tailwind CSS, HTML5, CSS3

Backend: Node.js, Express.js, REST APIs, JWT Authentication, Zod

Databases: PostgreSQL, MongoDB, Prisma ORM

Tools: Git, GitHub, Postman, VS Code

CS Fundamentals: Data Structures & Algorithms, OOP, DBMS, Operating Systems, Computer Networks

ACHIEVEMENTS

- Maintaining a CGPA of 9.78/10 in B.Tech Computer Engineering at TIET.
- Built multiple full-stack web applications using the MERN stack and PostgreSQL-Prisma stack.

INTERESTS

- Cooking
- Dancing
- Exploring New Technologies