

# Arpit Tripathi

[GitHub](#) | [LinkedIn](#) | [DSA Portfolio](#) | [Portfolio](#) | [arpittripathiayo@gmail.com](mailto:arpittripathiayo@gmail.com) | +91-8707424119

## CAREER OBJECTIVE

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- Software engineering student with strong foundations in data structures, algorithms, object-oriented programming, and problem solving.
- Solved 300+ DSA problems and built multiple projects focused on clean architecture, validation logic, and maintainable code.

## TECHNICAL SKILLS

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<b>Languages:</b>	Java, Python, JavaScript, TypeScript, Ruby
<b>Backend:</b>	FastAPI, Node.js, Express.js, RESTful APIs, SQLAlchemy
<b>Databases:</b>	PostgreSQL, MySQL, MongoDB
<b>Developer Tools:</b>	Git, GitHub, Docker, Postman, Swagger UI, Linux
<b>CS Fundamentals:</b>	Data Structures, Algorithms, OOP, System Design, Time Complexity

## PROJECTS

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### Course Enrollment API

Nov 2025 - Jan 2026

*Tech Stack: Python, FastAPI, SQLAlchemy, Pydantic, PostgreSQL, Swagger UI*

- Designed and implemented 15+ REST endpoints handling student enrollment workflows, achieving proper cascade operations and maintaining referential integrity across 4 database tables.
- Architected 3-layer separation (router, service, repository) reducing code duplication by 40% and enabling independent testing of business logic.
- Applied relational constraints and business rules such as unique fields, foreign key validation, and duplicate prevention.
- Deployed on Render and documented all endpoints using Swagger UI: [Live Docs](#)

### FastAPI Inventory Management System

Nov 2025 - Dec 2025

*Tech Stack: Python, FastAPI, SQLAlchemy, Pydantic, PostgreSQL, HTML, CSS, JavaScript*

- Built complete CRUD operations for inventory management with automatic input validation using Pydantic schemas, preventing invalid data entry and reducing error rates.
- Implemented centralized exception handling middleware returning standardized HTTP responses (400, 404, 500) across all 12 endpoints.
- Deployed Link: [Live Demo](#)

### Secure Exam Portal

Apr 2025 - May 2025

*Tech Stack: React, Node.js, MongoDB, Express, JWT, CSS*

- Developed role-based authentication system using JWT tokens with 2-tier access control separating student and admin functionalities.
- Implemented protected routes using React Router guards, preventing unauthorized access to admin dashboards and exam management features.
- Designed MongoDB schema with proper indexing for users, exams, and submissions, ensuring data isolation between different user roles.
- Deployed full-stack application handling concurrent user sessions with secure token refresh mechanism for persistent login.

## EDUCATION

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### B.Tech in Computer Science Engineering (AI & ML)

*Expected: 2028*

*Polaris School of Technology, Bangalore*

*SGPA: 7.75 / 10.0*

- **Relevant Coursework:** Data Structures, Algorithms, Database Management Systems, Object-Oriented Programming

## ACHIEVEMENTS

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- Awarded **Reliance Foundation Undergraduate Scholarship** for academic excellence.
- Selected for **Aspire Leaders Program (Cohort 5)** by Aspire Institute among competitive applicants.
- Appointed as **Google Student Ambassador** to represent developer initiatives on campus.
- Solved 300+ algorithmic problems on [LeetCode](#) with focus on optimal time complexity.

## CERTIFICATIONS

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- **21st Century Employability Skills Program - Intermediate**, Wadhvani Foundation. [Show Credential](#)
- **Postman API Fundamentals Student Expert**. [Show Credential](#)