

# Parmendra Panwar

panwparmendra7@gmail.com | +91 7067416638

Anand Nagar, Bhopal (MP)

[in](#) LinkedIn | [🌐](#) Portfolio | [🐙](#) Github | [📄](#) Leetcode | [🔗](#) Codechef | [🔗](#) GFG

Pre-Final year student specializing in AI/ML with proficiency in C++, Data Structures & Algorithms and Low Level Design fundamentals. Experienced in building maintainable full-stack web applications with attention to performance and clean code.

## Experience

### Medorn Ventures, Bhopal

January 2025 – September 2025

#### Software Developer Intern

- Contributed to **4 production applications**: Medorn ERP, Admin Portal, Medorn Billing, and Medorn Website.
- Enhanced 4 core ERP modules: **Engineered Role-based Permission Control (RBAC)**, Expense, Attendance, and **Leave systems**.
- Initiated a new project** from scratch by defining **folder structures and reusable components** for consistent development.
- Built Inventory & Supplier flows: Integrated client onboarding and product modules, streamlining the lead-to-client conversion.
- Delivered UI/UX precision, managed and integrated multiple **state-driven APIs** into the existing Redux architecture.

## Skills

- System Design: CPP, Object-Oriented Programming (OOP), SOLID Principles, Design Patterns.
- Back-end: Node.js, Express.js, MongoDB, MVC Architecture, Machine Learning - Gen AI fundamentals, Git/GitHub.
- Front-end: React, Redux, JavaScript, Jest, React Testing Library, Tailwind.
- Competitive Programming: LeetCode Knight (Top 5%), CodeChef 3\* Coder, Solved 1200+ problems across platforms.

## Projects

### Trip-linker | MERN, Redis, A\* Search, Geospatial Grid

[🔗](#) Live | [🐙](#) Frontend | [🐙](#) Backend

- Engineered an itinerary planner that segments travel schedules into multi-day paths based on distance (10–23ms latency) using **A\* Search** and a **geospatial grid system**. Optimized with MongoDB indexing and Redis caching to minimize re-computation.
- Developed  $O(1)$  **nearby search** using coordinate hashing and spatial grids, enabling activity discovery within 1.1km sectors.
- Architected 2-role authentication (Business, Individual) using JWT stateless auth and Redux for global state management.
- Optimized UX by **non-blocking uploading** to keep the UI active, using custom-hook Toast system to guide users in real-time.
- Streamlined multi-image uploads (up to 7), built **automated cleanup** during edits and deletions to minimize storage overhead.

### Order Management System (C++, SOLID Principles, Design Patterns)



- Implemented 4 Core Modules: user add product apply Coupon to cart/product initiate Payment to trigger real-time Notification.
- Decoupled core logic from external services, allowing new methods or services to be added with zero impact on existing code.
- Applied 8 Design Patterns: Strategy, Factory, Singleton, Observer, Decorator, Proxy, Template and Chain of responsibility.

### SaaS College Management System (MONOREPO)

[🔗](#) Live | [🐙](#) Monorepo

- Developed a multi-tenant SaaS with custom interceptors, ensuring 100% data isolation and secure access for 5+ user roles.
- Designing a K-Means productivity engine that bi-weekly processes 2 key metrics to categorize student cohorts.

**Other Projects:** [Wedding Site](#), [DAVM](#), Wishing card, JWT based Stateless auth, Postman alternative, Task manager.

## Achievements & Certifications

- Winner – Code Clash 2.0 Competitive Programming Contest, Runner-up – Mickey's Tech Coding Competition
- Web3 – Devcon Event Technical Quiz Winner; Core Nexus Hackathon participant
- Full-Stack Development (MERN Stack) – Apna College Delta Program
- Front-end Development – KG Coding & Chai with Code (Redux, Next, TypeScript).

## Education

### Technocrats Institute of Technology (TIT), Bhopal

Bachelor of Technology (B.Tech) – Computer Science Engineering AI & ML

Relevant Coursework: Software Engineering, Artificial Intelligence, Core CS, Data Structures & Algorithms

## Extra-Curricular Activities

### National Cadet Corps

- Serving as a cadet for 2.5 years, assisting in parades with 50-member teams, enhancing discipline and teamwork.

### Quanta Crew (Leader), Coding Club at TIT Science

- Leading a team of 250+ coders under the Quanta community for over a year, organizing coding sessions and events.