

Pratyush Yadav

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EDUCATION

- **Indian Institute of Information Technology Jabalpur** Madhya Pradesh, India
Bachelor of Technology in Computer Science and Engineering August 2024 – May 2028

TECHNICAL SKILLS

- **Programming Languages:** C, C++, Java, JavaScript, Python, Go, HTML5, CSS3, SQL
- **Frameworks & Libraries:** React.js, Next.js, Node.js, Express.js, TailwindCSS, MongoDB, PostgreSQL
- **Tools & Technologies:** Git, GitHub, Docker, Vercel, Firebase, Postman, GitHub Actions, RESTful APIs, WebSockets
- **Relevant Coursework:** Data Structures & Algorithms, Object-Oriented Programming (Java), Database Management Systems, Computer Organization & Architecture, Introduction to Data Science

PROJECTS

- **AEGIS-AST** [Npm](#), [Github](#)
Node.js, Babel AST, Groq AI, Security Tooling, Distributed Systems Apr 2026
 - Built an open source supply chain security tool that detects phantom dependencies and malicious npm packages using true AST parsing via Babel, catching a real world npm attack vector exploited by state sponsored hackers
 - Engineered **6 parallel local scanners** (exec abuse, eval detection, network calls, sensitive file reads, high entropy strings, install scripts) all executing under 1 second with **quarantine-first architecture** that sandboxes packages before they touch `node_modules`
 - Integrated Groq AI as a second-pass validator that only fires on scanner flagged anomalies, eliminating false positives and classifying typosquats with three deterministic verdicts: ALLOW, FLAG, or BLOCK
- **GLIMPSE** [Github](#), [Release](#)
Go, Data Structures, Terminal UI, Systems Programming Dec 2025
 - Built a high performance CLI code search tool in Go, implementing a custom **inverted index** data structure that maps tokens to file locations, achieving O(1) average time lookups and sub 50ms search latency across 10k+ file projects
 - Architected a concurrent indexing pipeline using **goroutines and channels** to process files in parallel, dramatically reducing index build time on multi core systems
 - Engineered cross platform editor integration using runtime OS detection to launch files at exact line numbers in VS Code, Vim, or system default editor; published cross platform binaries for Linux, macOS, and Windows
- **QUANTFORGE** [Github](#)
Python, FastAPI, React, TypeScript, PostgreSQL, WebSockets Nov 2025
 - Built a full stack backtesting platform with visual strategy builder (15+ indicators, no code required), historical data integration, and comprehensive performance analytics
 - Implemented **backend analytics pipeline**: data ingestion, strategy execution engine, and 30+ performance metrics including P&L tracking and drawdown analysis
 - Designed REST APIs (**18 core production endpoints**) and WebSocket infrastructure for scalable realtime strategy monitoring and backtesting

EXPERIENCE & ACHIEVEMENTS

- **3rd Place — HackByte 4.0 (MLH Top-50 Global Hackathon)** April 2026
Major League Hacking, IIIT Jabalpur
 - Won 3rd place at HackByte 4.0, a top 50 MLH hackathon globally, competing among 400+ offline participants and 5100+ registrations nationwide with 105 project submissions
- **Winner — CanYouHackIt Hackathon (Automation & Productivity Track)** September 2025
24-hour Intra college Hackathon, Organized by The Programming Club, IIIT Jabalpur
 - Won first place in the Automation & Productivity track by building **Clustify**, a Gmail cleanup Firefox extension for bulk email deletion and labeling using keyword-based rules
- **Competitive Programming Achievements** [Codeforces](#) | [LeetCode](#)
Data Structures, Algorithms, Problem Solving
 - Codeforces rating 1310(pupil); solved 150+ problems on LeetCode demonstrating consistent algorithmic problem-solving ability

LEADERSHIP & VOLUNTEERING

- **Dev Wing Member - BitByte Programming Club** IIIT Jabalpur
Core Team Member, Technical Contributor, Event Organizer 2024 - Present
- **HACKBYTE 3.0 - Technical Mentor** IIIT Jabalpur
Provided technical guidance to 200+ hackathon participants, mentored teams on full-stack development 2025