

HARIHAR BAJPAI

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EDUCATION

Vellore Institute of Technology

B.Tech in Computer Science Engineering; CGPA: 8.21

May 2026

St. Mary's Inter College

12th Standard; 81.2%

July 2022

TECHNICAL SKILLS

Languages: C/C++, Java, Python, SQL, TypeScript, JavaScript

Web Development: HTML5, CSS3, React.js, Node.js, Express.js, TailwindCSS, `shadcn/ui`

Databases: MySQL, MongoDB, Amazon DynamoDB

Cloud & DevOps: AWS EC2, Render, Environment Variable Management

Tools & Platforms: Git, Postman, Chart.js, Cloundinary, Google Sheets

Core Competencies: RESTful API Development, JWT Authentication, WebSockets, Responsive Design, Performance Optimization

PROJECTS

ProHireHub — Job Portal (MERN Stack)

March 2025

- Engineered a full-stack recruitment platform with RESTful API architecture, JWT authentication, and optimized MongoDB queries, improving load times by 70% and attracting 300+ registered users in the first week
- Pioneered a responsive mobile-first UI using React, Tailwind CSS, and `shadcn/ui`, achieving 90%+ cross-browser compatibility and near-perfect Lighthouse accessibility scores
- Integrated Cloundinary for secure, CDN-optimized profile picture storage with DataURI parsing for instant in-browser previews, enhancing user onboarding experience
- Built an NLP-driven support chatbot powered by Google's Gemini API to autonomously resolve 80% of user inquiries, reducing customer service workload by 60%
- Developed advanced job search with MongoDB text indexes, multi-criteria filters, and aggregation pipelines, enabling sub-second query responses

GICPL — Cricket Analytics Platform (MERN Stack)

January 2025

- Built a cricket analytics platform using MongoDB, Express.js, React, and Node.js (MERN) with WebSocket integration for live match updates, improving data refresh speed by 40%
- Used MongoDB for content management and Amazon DynamoDB for fast, low-latency match statistics storage, gaining experience in working with multiple databases
- Created responsive, mobile-friendly UI with React, Tailwind CSS, and dynamic 3D player visualizations, optimized with lazy loading and code-splitting
- Developed a role-based admin dashboard with JWT authentication to manage teams, players, schedules, and integrated Chart.js for basic analytics
- Deployed the application on Render with environment variables, static asset optimization, and basic CI/CD workflow for smooth updates

BitCrush — C++ File Compression Tool (DSA)

July 2025

- Developed a high-efficiency file compressor using Huffman Coding and priority queues, achieving significant reduction in file sizes
- Implemented custom binary encoding/decoding via bit manipulation and Huffman Trees for optimal compression ratios
- Handled binary I/O operations and edge-case scenarios to ensure data integrity during compression/decompression
- Optimized memory usage through manual allocation/deallocation and efficient tree traversal algorithms
- Packaged project with modular code structure for scalability and ease of integration into larger systems

EXTRACURRICULAR

Taekwondo

State Level Silver Medalist

Badminton

District Level Champion

BashCraft Club, VIT Bhopal

Tech Lead

Cricket Tournaments

Played and Managed Various Local Events

ADDITIONAL INFORMATION

Languages: English (Fluent), Hindi (Fluent)

Skills: Creative Thinking, Analytical Reasoning, Communication, Teamwork, Leadership, Conflict Resolution, Patience, Listening