AAYUSH PANWAR.

Education

VIT Bhopal University

Bachelor of Science in Computer Science — CGPA: 8.39/10.0

Expected Graduation: May 2026

Sehore, Madhya Pradesh

• Relevant Coursework: Data Structures & Algorithms, Database Management Systems, Operating Systems, Computer Networks, Software Engineering, Object-Oriented Programming, Cloud Computing

Work Experience

Pinak Idea Lab Private Limited

November 2024 – January 2025

Web Development Intern

Bhopal, Madhya Pradesh

- Led team of 4 developers building scalable responsive website using Eleventy (11ty) with comprehensive Markdown documentation
- Mentored junior developers on **modern web development practices**, conducted weekly code reviews for quality assurance
- Implemented comprehensive SEO optimization with XML sitemaps, Schema.org markup, and structured data enhancing search engine visibility

Projects

Microsoft Loop 2.0 | Source Code

Next.js | Firebase | Gemini API

- Architected collaborative workspace with **real-time editing** using **Firebase Realtime Database** and **WebSocket** connections
- Engineered Server-Side Rendering (SSR) in Next.js reducing page load time by 40% with Clerk authentication and JWT-based security
- Deployed on Vercel with automated CI/CD pipelines using GitHub Actions for streamlined deployment

PrepAI - Mock Interview Platform | Source Code

Next.js | PostgreSQL | Gemini API

- Developed AI-powered interview platform with webcam/audio recording using MediaStream API and PostgreSQL database
- Designed responsive UI using shadcn/ui and Material-UI achieving 95+ Lighthouse score with accessibility compliance (WAI-ARIA)
- Integrated Gemini AI API for dynamic questions across various technical domains with automated feedback using natural language processing

Cipher - Real-time Chat Application | Source Code

Next.js | Firebase | Clerk | Cloudinary

- Engineered messaging platform with **Firebase Realtime Database** supporting **instant message delivery** and live **typing indicators**
- \bullet Integrated Cloudinary API for seamless image uploads with automatic compression reducing file sizes by 60% and CDN optimization
- Implemented push notifications and Clerk authentication with secure session handling and OAuth integration

Certifications & Achievements

- Research Publication Comparative Analysis of Convolutional Neural Network and Support Vector Machine for Alzheimer's Disease Prediction (DOI: 10.1007/978-3-031-89760-3_5, May 2025)
- NPTEL Cloud Computing Completed comprehensive course covering cloud architecture, deployment strategies, and distributed computing fundamentals
- IBM DevOps and Agile Methodologies Certified in modern software development practices, CI/CD pipelines, and collaborative development workflows

Technical Skills

Programming Languages: JavaScript, TypeScript, Python, Java, HTML5, CSS3, SQL

Frontend Development: React.js, Next.js, Vue.js, React Native

Backend Development: Node.js, Express.js, PostgreSQL, MongoDB, REST APIs Cloud & DevOps: AWS (EC2, S3, Lambda), Docker, Jenkins, CI/CD Pipelines Developer Tools & Platforms: Git, GitHub, Postman, Webpack, Linux, Nginx