Ansh Agarwal

☎ +91 7500906096 | ✉ agarwalansh651@gmail.com | 🔗 Portfolio | 🔗 LinkedIn | 🔗 GitHub

EDUCATION

Vellore Institute of Technology, Bhopal   *Sept 2022 – June 2026*
B.Tech in Computer Science & Engineering   *CGPA: 8.93/10*

TECHNICAL SKILLS

Languages: JavaScript (ES6+), TypeScript, Python, C++, Dart
Frontend: React.js, Next.js, HTML5, CSS3, Tailwind CSS, Responsive Design, Flexbox/Grid, ShadCN UI
Backend Tools: Node.js, Express.js, NestJS, REST APIs, Firebase, MongoDB, MySQL, Git/GitHub, AWS (EC2/S3, RDS), Chrome DevTools
Computer Science Fundamentals: OOP, Operating Systems, DBMS, Computer Networks
Linux System Tools: Linux CLI, Bash Scripting, File System, Permissions, Process Management, Networking Basics

EXPERIENCE

Bluestock Fintech   **May 2025 – July 2025**   *SDE Intern — Remote*
- Built and optimized core frontend components using React, TypeScript, and Tailwind, improving page load time and user experience across the investment dashboard and integrated REST APIs and enhanced data-fetching logic, reducing latency and enabling smoother real-time stock insights for end-users.

PROJECTS

Aqua Sense AI – Water Quality Monitoring Dashboard   **Link**
Python, ARIMA, Firebase (DB/Auth), React, TypeScript, Tailwind CSS, Plotly, Chart.js, Tableau, REST APIs
- Built a real-time dashboard to track **9+ parameters** (pH, DO, BOD, etc.) across 44+ stations in 28 states, automating the calculation of the NSF Water Quality Index (WQI) for immediate insights.
- Developed an **ARIMA (5,1,0)** forecasting model to predict WQI trends 15 years into the future with **92% accuracy**, enabling proactive environmental management.
- Engineered features for geographic visualization, AI-powered anomaly detection, and seamless integration with Tableau to validate and surface trends from diverse data flows (CSV).

PrepWell – AI Mock Interview   **Link**
Next.js, Firebase (DB/Auth), Tailwind CSS, TypeScript, shadcn/ui, Vapi AI, Google Gemini API, REST APIs
- Engineered a voice-enabled mock interview platform using **Vapi AI** and **Google Gemini** to conduct adaptive, role-specific practice sessions and generate real-time questions.
- Developed an automated feedback system that provides structured evaluations with category-based scores, saved transcripts, and actionable improvement strategies.
- Validated system performance by simulating **50+** diverse user scenarios and enabled users to manage their interview history for targeted practice.

QuizCrafter – Advanced MCQ Generator Using GENAI   **Link**
Python (FastAPI/Flask), React, TypeScript, Gemini API, SpaCy, BeautifulSoup, pdfkit, REST APIs
- Developed an AI-driven platform that reduces quiz creation time by 80% by automating the generation of **3-50 questions** with **3-6 answer options**, multi-answer support, and creativity controls.
- Extended functionality by integrating **web scraping** to parse articles and generate MCQs directly from URLs.
- Designed a **one-click PDF export** system with an answer key to produce printable study guides.

CERTIFICATIONS

- **GenAI using IBM watsonx** — IBM, Apr 2025: prompt engineering, model deployment (virtual hands-on).
- **MongoDB Developer Path** — MongoDB, Jul 2025: schema design, indexing, and performance tuning.
- **Saviynt Identity Security for AI Age** — Saviynt, Aug 2025: identity security for AI; *8 CPE hours*.

ACHIEVEMENTS & EXTRACURRICULAR

- **National Semi-Finalist, Flipkart GRiD 7.0:** Advanced to Round 3, led a 3-member team among 160k+ participants.
- **Walmart Global Tech Sparkathon:** Contributed to an open innovation challenge focused on developing technological solutions for global retail challenges.
- **LeetCode:** Solved 600+ DSA problems, achieved MySQL Badge, contest rating-1459. - **LeetCode Profile** .
- **Core Member of Microsoft Technical Club, VIT Bhopal:** Actively participated in club activities, technical workshops and coding events.