

Ansh Agarwal

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EDUCATION

Vellore Institute of Technology, Bhopal
B.Tech in Computer Science & Engineering

Sept 2022 – June 2026
CGPA: 8.93/10

TECHNICAL SKILLS

Languages: Python, JavaScript (ES6+), TypeScript

Data & ML: Pandas, NumPy, Scikit-learn, Time-Series Forecasting (ARIMA), Model Training, Evaluation

Data Engineering & Analytics: REST APIs, Data Ingestion & Transformation Pipelines, SQL (joins, aggregations, CTEs), Tableau, Plotly, Dashboards

Platforms & Tools: Firebase (DB/Auth), Git, GitHub, Google Gemini API

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), 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 System

[Link](#)

Python, Firebase, Tailwind CSS, TypeScript, Vapi AI, Google Gemini

- Engineered an AI-driven interview system that generates **role-specific, adaptive questions** using Google Gemini and Hugging Face pipelines, enabling realistic, dynamic interview flows.
- Designed **interviewer personas** using advanced prompt engineering—modelling tone, behavior, follow-up logic, and context retention for highly natural interactions.
- Integrated **Vapi AI** to enable real-time, human-like voice interviews with smooth speech synthesis, turn-taking logic, and latency-optimized response handling.
- Built an automated analysis engine that provides **structured feedback, skill-wise scoring, transcript summaries, and improvement insights** to enhance user performance.

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 solutions.
- 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.