

Vaibhav Dwivedi

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SUMMARY

Software engineer with hands-on experience building full-stack web applications, GenAI/RAG pipelines, and end-to-end data engineering systems. Proficient in Python, Java, JavaScript, SQL, LangChain, React, Node.js, Docker, and AWS. Delivers measurable impact through performance optimization, clean system architecture, and reproducible, production-grade engineering practices across distributed, data-intensive applications.

EXPERIENCE

ASSANJ

May 2026 – Present

Full Stack Developer

Remote

- Developing and optimizing 5+ full-stack client applications using React, Node.js, and REST APIs; collaborating in an agile, industry-oriented environment to ship features across the complete development lifecycle
- Implementing scalable backend logic, responsive UI components, and streamlined CI/CD workflows across 10+ modules, improving page response times by up to **35%** and cutting redundant network requests by **40%**; contributing to code reviews and architectural decisions

Analytx4t | LOR

Dec 2025 – Feb 2026

Generative AI Intern

Remote

- Built production GenAI applications using LLMs, LangChain, and Python; delivered 8 RAG pipelines for document intelligence with vector search and tool-augmented agents
- Reduced inference latency by **40%** via chunking and embedding tuning; evaluated 5+ prompt strategies, boosting RAG faithfulness scores by **22%** on internal benchmarks

PROJECTS

ScholarIQ (Research Intelligence Platform) | Python, SQL, SQLite, Scikit-learn, XGBoost, LightGBM, Pandas, REST APIs, YAML, Git

- Architected a modular, config-driven ETL pipeline (Python, YAML, REST API integration) spanning 8 reproducible stages, ingesting and normalizing 2,000+ records across 27 engineered features from the OpenAlex API into a queryable SQLite database with versioned schemas and automated reproducibility checks
- Engineered a leakage-safe feature pipeline and trained/benchmarked 14 classification models (XGBoost, LightGBM, Random Forest, MLP); tuned the top 5 models via hyperparameter search to reach **0.628 ROC-AUC**, then extended the system with a second 12-model classifier (**68% ROC-AUC**, 0.60 macro-F1) and unsupervised topic clustering, backed by full documentation and automated demo scripts

UniTalks (Under Development) | Node.js, Socket.IO, React, Redis, WebRTC, Docker, AWS EC2, Nginx | Video

- Building a full-stack anonymous real-time chat platform at unitalks.in; integrating WebRTC voice/video, Redis session state, and Nginx reverse proxy on AWS EC2 to support **1,000+ concurrent connections**
- Scaling horizontally via Redis Pub/Sub; containerized with Docker Compose and CI/CD via GitHub Actions, reducing deployment time by **75%**; validated at 150+ concurrent users under load testing

Baansinfra (at ASSANJ) | React, Node.js, Supabase

- Leading full-stack development of baansinfra.com—a project portfolio and lead-generation platform covering 20+ residential, hospitality, and institutional projects for a bamboo construction and architecture firm
- Architected the backend with Supabase (PostgreSQL, Auth) for enquiry management and dynamic project categorization, supporting 100+ structured records; built a responsive React frontend integrated with Node.js services

EDUCATION

Vellore Institute of Technology

2024 – 2028

B.Tech Computer Science – Specialization in Data Science | CGPA: 8.10

Chennai, India

- Impact:** Organized OpenHack 2025 (130+ participants, \$5K+ prizes); Event Coordinator at IE(I); Attended AI/ML workshops along with 200+ students at IIT Madras and NIT Trichy; Programme Management Head at Y-SoC, overseeing 500+ participants
- Patent:** "System and Method for Stress and Pain Detection Using Multi-Scale Transformer-Based Neural Networks" – Application No. 202641065281 (Published)
- MSME:** Selected for the MSME 5.0 Program, VIT Chennai | **Hackathon:** Winning certificate, Hackwarts (Prodinno) – [Certificate](#)
- Blog:** [Phishing Traffic Analysis and Malware Detection](#)

Central Academy, Lucknow

Class 12 CBSE – PCM: 85.2% | Class 10 CBSE – Overall: 92.3%

SKILLS

Languages : C, C++, Java, Python, JavaScript (React.js, Node.js), TypeScript, HTML/CSS, Dart (Flutter), SQL

AI & ML : TensorFlow, PyTorch, Scikit-learn, LangChain, LangGraph, MLflow, Hugging Face, NumPy, Pandas, ChromaDB, FAISS

Web & Cloud : REST APIs, FastAPI, Next.js, Docker, AWS EC2, Redis, Supabase, PostgreSQL, Nginx, Vercel, Netlify, Render

Engineering & Tools : OOP, Data Structures & Algorithms, System Design, CI/CD, Unit Testing, ETL Pipelines, Apache Kafka, WebSockets, Git, GitHub Actions, Jira, Figma, Power BI, Postman, Linux

Certifications : MongoDB Building RAG Apps (2025) | Google Agentic AI Day (2025) | Microsoft Agentic AI Workshop (2025) | [AI Agents Workshop](#) (Kapidhwaj Innovations) – LLMs, LangChain & AI tooling