

Anikait Agrawal

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Internship Experience

Shyam Spectra

Gurugram, IN

Data & Automation Intern – Sales Excellence

May 2025 - Jun 2025 (1.5 Months)

- **Automated** market and competitor data extraction using JavaScript-based **web scraping** (Puppeteer) and APIs.
- Built **Excel** tools to streamline internal sales reporting, reducing manual effort by ~70%.
- Created dashboards and reports to support lead generation and conversion tracking.
- Prepared **data-driven presentations** for internal reviews and management to provide practical insights.
- Tools: FastAPI, Node.js, Selenium, Puppeteer, SQL, Excel Dashboards

Centre for Development of Telematics (C-DOT)

New Delhi, IN

Full Stack Development Intern

May 2024 - July 2024 (1.5 Months)

- Developed an internal **paper publishing management tool**, incorporating NLP processing and concurrent file access with role-based controls to streamline research workflows.
- Upgraded and documented **custom Moodle LMS**, improving usability by 20 % and reducing friction for internal teams.
- Contributed to **UI and UX design**, improving interface consistency and user flow across key modules.
- Collaborated with engineers on **backend integration and feature development**.

Project

Industrial Equipment Health Monitor (IoT + Computer Vision) - [\[View Project\]](#)

- Developed a real-time **Industrial Equipment Health Monitoring System** using **ESP32, FastAPI, and OpenCV**, enabling continuous collection and processing of video and sensor data from industrial machinery.
- Applied **Eulerian Video Magnification (EVM)** and **sensor fusion techniques** to amplify micro-vibrations, detect mechanical irregularities, and reduce false positives through vibration-based validation.
- Built a **UDP-based data ingestion pipeline**, **REST APIs**, and a monitoring dashboard for **real-time anomaly detection, visualization, equipment health tracking, and historical data retrieval**.

Nirvana Yoga CMS Platform - [\[View Project\]](#), [\[Github\]](#)

- Architected a **database-driven Content Management System (CMS)** supporting **blogs, events, retreats, testimonials, galleries, and website content** through a centralized management platform.
- Designed content **moderation and publishing** workflows that enabled non-technical users to **create, review, approve, and manage content** without requiring developer intervention.
- Implemented scalable **PostgreSQL data models, Prisma ORM**, and a service-layer architecture in Next.js and TypeScript, improving content delivery, maintainability, and future platform scalability.

AI Debug Assistant for Codebases - [\[View Project\]](#), [\[Github\]](#)

- Designed a **Retrieval-Augmented Generation (RAG)** pipeline to parse, chunk, embed, and index source code using **ChromaDB** for semantic code retrieval.
- Implemented **query-driven retrieval** and prompt engineering for **code tracing, bug detection, and architectural analysis**, grounding responses in relevant code context.
- Developed **FastAPI APIs** for real-time codebase querying and integrated logging to evaluate outputs, reduce hallucinations, and continuously improve response quality.

Skills

Programming Languages: Python, Java, JavaScript, SQL, TypeScript, HTML, CSS, Embedded C

Frameworks & Technologies: FastAPI, Node.js, Express.js, Next.js, React, OpenCV, Prisma, Puppeteer

Databases & Storage: PostgreSQL, MySQL, MongoDB, ChromaDB

AI & Data Systems: Retrieval-Augmented Generation (RAG), Prompt Engineering, NLP Workflows, Semantic Search, Vector Databases, Real-Time Data Processing

Cloud, APIs & Tools: REST APIs, OpenAPI, Git, GitHub, Docker, Linux, Google Places API, RapidAPI, Apify

IoT & Embedded Systems: ESP32, ESP32-CAM, Arduino, UDP/HTTP Protocols, Wi-Fi Microcontrollers, Sensor Integration

Education

Vellore Institute of Technology, Vellore

Vellore, Tamil Nadu

Bachelor of Technology (B.Tech), Information Technology

7.91 CGPA

2022-2026

Delhi Public School, Gr Noida

Gr. Noida, UP

Class XII(CBSE)

83.75 %

2022

Vidya Niketan Birla Public School, Pilani

Pilani, Rajasthan

Class X(CBSE)

90 %

2020