

VAIBHAV VIKAS RANJAN

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LinkedIn

GitHub

Portfolio

Education

International Institute of Information Technology, IIIT-NR

Nov 2022 - July 2026

B.Tech Data Science and Artificial Intelligence

Naya Raipur, Chhattisgarh

Experience

Accure Inc.

Jan 2026 – July 2026

AI Engineer Intern

Bangalore, India

- Improved **LLM reasoning reliability** for an enterprise **generative AI** platform (AccureIQx), as evaluated through a **seven-dimension evaluation framework** and **six-criterion validation rubric**, by designing and governing **agentic AI workflows** and **prompt-engineering** pipelines for **enterprise search** and reasoning use cases.
- Strengthened adversarial robustness of **agentic reasoning** systems, achieving high anomaly-detection accuracy across **five stress-test scenarios**, by engineering synthetic cybersecurity incident datasets with realistic log data.
- Cut manual weekly reporting time by **35%**, saving analyst hours, by building automated **Python (Pandas, NumPy)** analytics pipelines integrating multi-source EDA data via **REST APIs**.

Taskar – India's 1st Healthcare Mall

May 2025 – July 2025

Software Developer Intern

Remote, India

- Reduced manual reporting workflows by **40%**, cutting process time, by building **microservice-based RESTful API** integrations to retrieve and analyze live **healthcare and inventory data** for business stakeholders.
- Improved **analytics dashboard** load times by **30%**, per page-render benchmarks, by optimizing **UI rendering** and **asynchronous data fetching** with **React Hooks**.
- Increased user engagement by **15%** and cross-team adoption, confirmed by **A/B test** results, by redesigning dashboard layouts based on internal stakeholder feedback.

Research Designs and Standards Organisation (R.D.S.O)

May 2024 – July 2024

Software Engineering Intern

Lucknow, India

- Supported **500+ concurrent users** at **99.9% uptime**, verified through system load testing, by engineering a responsive, **service-oriented attendance tracking system** (**HTML, CSS, JavaScript, PHP, MySQL**).
- Cut login times by **60%** for **1,000+ daily users**, based on authentication response benchmarks, by designing an optimized **authentication workflow** and adding **AJAX-based** real-time interactivity that boosted retention **20%**.
- Validated production-grade performance under high concurrency, using **Apache JMeter** load and scalability tests, by conducting systematic **stress testing** across peak-usage scenarios.

Projects

CFR Compliance Checker: Agentic Contract Auditor | *Python, FastMCP, Agno, Ollama, Pydantic* | [Github](#)

- Built a custom **MCP server** wrapping the official **eCFR REST API** (**7 typed MCP tools** for regulatory search and retrieval) and architected an **end-to-end agentic pipeline** using an **Agno-based LLM compliance agent** on local **Ollama (Llama 3.1)**, producing validated, structured compliance results per clause.
- Optimized the pipeline with **concurrent CFR retrieval** and evaluation, reducing end-to-end runtime by **65%** (12 min → 4:10) on a **24-clause** government contract, with async I/O and caching for low-latency responses.

Welding Anomaly Detection: PatchCore PoC | *PyTorch, Anomalib, OpenCV, NumPy* | [Github](#)

- Built an **unsupervised anomaly detection** pipeline using **PatchCore** (Anomalib), trained only on normal weld images to detect unseen defect types without labeled data.
- Generated **pixel-level explainable heatmaps** alongside anomaly scores, validating detection through a **threshold-based decision pipeline** on real weld imagery.

Smart ATS: Resume-JD Matcher | *Python, FastAPI, Streamlit, SentenceTransformers, PyMuPDF* | [Github](#)

- Engineered an **explainable NLP-based ATS engine** combining **transformer-based semantic embeddings** (SentenceTransformers) with keyword-based scoring, supporting **dual scoring modes** to simulate real-world ATS behavior.
- Implemented **FastAPI backend** services and a **Streamlit UI** for resume-JD matching, surfacing **missing-keyword detection** and top contributing resume chunks, with **privacy-safe parsing** that auto-redacts contact data.

Technical Skills and Interests

Languages: Python, SQL, C++, JavaScript, HTML/CSS

Technologies/Frameworks: NumPy, Pandas, Matplotlib, PyTorch, TensorFlow, Scikit learn, OpenCV, LangChain, LangGraph, Streamlit, FastAPI, MCP, Chainlit, PostgreSQL

Tools & Platforms: Docker, AWS, Git, Tableau, Hugging face, ChromaDB

AI/ML & familiar Domain: Generative AI, LLMs, RAG (Retrieval-Augmented Generation), NLP, Machine Learning, Computer Vision, Anomaly Detection, Deep Learning, Full Stack Development, Data Engineering, Prompt Engineering, Data Analysis