

Ayush Shaw

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[LinkedIn](#) — [GitHub](#) — [LeetCode](#)

Education

National Institute of Technology, Durgapur

Aug 2023 – Jun 2027

B.Tech in Computer Science

CGPA: 7.91/10 (4 semesters)

Relevant Coursework: Data Structures & Algorithms, Machine Learning, Operating Systems, DBMS

Experience

Project Intern (Mentored), Techsaksham (Microsoft + SAP)

Jan 2025 – Feb 2025

- Built a multi-disease predictor using Scikit-learn, Flask, Streamlit.
- Achieved 88% accuracy across 4 diseases via cross-validation.

Project Intern, 1Stop.ai

Apr 2025 – Jul 2025

- Developed a hate speech classifier using NLTK and Decision Trees.
- Built a heart disease predictor using Scikit-learn with AUC-based evaluation.

Selected GenAI & SWE Projects

Smart Resume Analyzer [\[Live Demo\]](#) [\[GitHub\]](#)

Streamlit, NLP (spaCy/pyresparser), SQLite, PDFMiner — Developed an interactive resume analysis platform used by 200+ users to provide ATS-style scoring, field inference, skills extraction, and keyword matching with job descriptions. Implemented robust name-extraction fallback logic, personalized skill/course recommendations, and a password-protected admin dashboard for secure analytics.

RAG Chatbot with AstraDB

LangChain, LangGraph, AstraDB — Retrieval-Augmented Generation system using vector search and multi-agent routing. Queried over 500+ documents with 90% answer match accuracy (internal test set).

LangGraph Tool Agent

LangChain, LangGraph, External APIs — Built a conditional agent system integrating calculator, search, memory with LangGraph orchestration and dynamic path control.

Grammatical Error Correction [\[GitHub\]](#)

T5, TensorFlow, Hugging Face — Fine-tuned T5 Seq2Seq (222M+) for grammar correction. Achieved BLEU: 68.5; implemented learning rate scheduling and zero-shot evaluation.

Advanced Event Management System (DBMS) [\[Live Demo\]](#) [\[GitHub\]](#)

Python, SQLite, Streamlit — Modular CRUD app with role-based access, billing automation, and SQL triggers/views for data consistency.

Voice Assistant [\[Demo Video\]](#) [\[GitHub\]](#)

Flask, LangChain, VLC, SpeechRecognition — Built a voice assistant with LLM-based intent detection, weather/music/reminders, and YouTube playback via VLC.

Publications

- Transformer-Based Grammatical Error Correction Using Sequence Modeling, TechRxiv, Jul 2025. [Link](#)
- Ayush Kumar Shaw, Semantic Segmentation for Clothing Detection using Deep Learning, Preprint available at ResearchGate, July 2025.

Technical Skills

Languages: Python, C++, SQL

Frameworks: TensorFlow, PyTorch, Flask, Streamlit, OpenCV

AI/ML: Transformers, LangChain, LangGraph, NLP, RAG, GANs, Whisper, CV
Tools: Git, VS Code, Anaconda, Hugging Face, AstraDB

Achievements

- Rating of 1600 at Atcoder.
- 5 Stars at Codechef.
- Expert at Codeforces
- 98.1 percentile in JEE Mains (AIR 22K / 1.6M).
- IMO (SOF) – Intl. Rank 2024, School Rank 3. CBSE Merit for 100/100 in SST; multiple school awards.
- Certified in Data Science, GenAI, Decode C++ (PW Skills, Udemy).