

Indranil Bain

Portfolio: not-indro.github.io/Portfolio

GitHub: github.com/not-indro

EDUCATION

Indian Institute of Engineering Science & Technology, Shibpur

B.Tech, Computer Science & Technology, CGPA: 7.83/10

Howrah, India

December 2020 – July 2024

SKILLS SUMMARY

Programming Languages: Python, SQL, C++

ML Frameworks: PyTorch, PySpark, TensorFlow, scikit-learn, spaCy, Keras, OpenCV, Transformers

LLM & GenAI: Fine-tuning, RAG, Prompt Engineering, LangChain, AWS Bedrock, Hugging Face, AutoGen

Data Pipelines & MLOps: Apache Airflow, AWS SageMaker, Docker, A/B Testing, ETL/ELT, CI/CD for ML

Database & Cloud: AWS (RDS, S3, Glue, Redshift), Azure, PostgreSQL, MongoDB, FAISS

Data & Dev Tools: Git, Jira, Confluence, DBeaver, Adv. MS Excel, Power BI, VS Code

EXPERIENCE

EvenFlow AI

Data Analyst

Developed a repair-category prediction model for operation codes using TF-IDF and Logistic Regression. Cleaned and prepared the data, tuned the model, and reached 91% accuracy, which helped reduce manual tagging work by 80% and improved repair tracking.

Created an outreach tool for the support team to easily upload CSV files and trigger customer reminders. Set up a rule-based system plus integrated TextGrid API for scheduled messages, which cut a lot of manual follow-ups (around 75%) and improved rescheduling rates.

Worked directly with the CEO to dig into operational data, improved the internal calculations, and supported service center managers with insights that helped them streamline processes and drive better results.

i3 Digital Health

Data Engineer Trainee

Automated data pipelines to pull drug, cancer, and biomarker data from the ClinicalTrials API using SciSpacy NER and BioBERT model, reduced manual lookup work by 85%. Handled data cleaning, entity mapping, and tagging so the research team could use the data directly.

Developed a scalable ETL scraper for FDA oncology drug label PDFs, automating ingestion, parsing, and storage (S3) saving 3 Hours/day of manual work. Used BeautifulSoup4 + async task queues.

IEST, Shibpur

Summer Project Intern (Faculty Mentor: Prof. Abhik Mukherjee)

Developed an GRE practice platform using React. Focused on simplifying the UI and on-boarding flow, which helped students get started faster and led to 35% higher engagement and 40% drop in on-boarding time.

Implemented a basic recommendation system using collaborative filtering and user behaviour data to suggest practice questions, which helped students improve scores by 25%.

IIT Kharagpur

Research Intern (Faculty Mentor: Prof. Debdoot Sheet)

Worked on medical imaging pipeline for the Skin Curate app, focusing on cleaning and improving dermatology image data. Improved preprocessing and evaluation steps, helping reduce false positives by 30%.

Implemented with Federated Learning for dermatology image classification, improving model performance and privacy compliance achieving 83.2% accuracy across distributed training nodes.

Northfield, IL, USA (Remote)

January 2025 – Present

Bangalore, India

September 2024 – December 2024

Howrah, India

May 2023 – July 2023

Kharagpur, India

Jul 2022 – Oct 2022

PROJECTS

Biased News Classifier (Github)

Fine-tuned DistilBERT on the MBIC dataset for bias detection, with preprocessing, class-balancing, and AdamW optimisation. Achieved 73% accuracy and deployed with live NewsAPI ingestion and an interpretability dashboard.

pdfSAGE - Chat With PDF (Github)

Built an PDF assistant using LangChain + Pinecone + OpenAI SDK for semantic search & Q/A over documents. Developed Next.js app with PostgreSQL, AWS S3 and chat interface.

Handwritten Mathematical Expression Recognition Model (Github)

Contributed to a ViT to GPT2 encoder-decoder for HMER Model, producing LaTeX from images and improving CROHME accuracy to 88% across diverse handwriting styles

ADDITIONAL PURSUITS

REVELATION (Departmental Fest): Assistant Treasurer (2023), Event Secretary (2024)

REBECA (Cultural Fest): Publication Co-Lead (2023), Cultural Secretary (2024)

SPORTS: Represented our university team in inter-college badminton and football tournaments.