Ayush Kumar Mourya

+91-8851446033 | ayush22126@iiitd.ac.in | github.com/Ayush | linkedin.com/in/ayush | portfolio/Ayush

Education

Indraprastha Institute of Information Technology, Delhi

B. Tech in Computer Science, Minor in BioScience

Aug 2022 - May 2026

Experience

Research Intern, Complex Systems Lab, IIIT Delhi

Jan 2025 – Apr 2025

GitHub Link | Python, NLP, LSTM, Fine-Tuning LLMs, Hugging face. Web Scraping

- Designed a generative model to create stepwise cooking recipes using LSTM and transformer-based architectures like GPT-2 and DeepSeek Qwen 1.5B.
- Developed token formats, preprocessing pipelines, trained and fine tuned Deepseek & GPT-2 models on a large-scale dataset of **2,00,000 recipes**.
- Achieved BLEU scores of 0.361 (LSTM), 0.583 (GPT) and 0.723 (DeepSeek Qwen 1.5).

Web Developer, Bizify Associates

May 2025 – Present

GitHub Link | HTML, CSS, JavaScript | Startup

- Built a responsive and user-friendly website for Bizify to establish a strong digital identity.
- Integrated smooth navigation and intuitive design to communicate Bizify's mission and services.
- Actively contributing to **expanding platform features** and enhancing **user experience**.
- · Collaborating with the team as Bizify scales its operations and prepares to onboard new clients.

Projects

Rice Image Classification

Aug 2024 - Nov 2024

GitHub Link | Python, scikit-learn, Tensorflow, NumPy, Matplotlib, CNN, ML, OpenCV

- Developed an end-to-end pipeline for classification of **75,000**+ rice grain images across **5 varieties**.
- Used both Machine Learning models and then CNNs to further improve accuracy.
- Applied outlier removal, normalization, and data augmentation to boost performance.
- Achieved 96.12% accuracy using CNNs and an average of 92% accuracy using ML models.
- Tracked model performance with confusion matrices, training loss plots, and accuracy curves.

Gene Expression Analysis

Jan 2024 – May 2024

GitHub Link | Python, Pandas, Bioinformatics, PCA, Machine Learning

- Analyzed microarray gene expression data to differentiate between acute and chronic leukemia.
- Performed normalization, built classification models and improved accuracy from 90% to 94%.
- Identified top gene features after dimensionality reduction & using statistical analysis & confusion matrices.

Technical Skills

Languages: C++, Python, Java, C, SQL

Data Scientist: Machine Learning, Statistical Analysis, Exploratory Data Analysis, Data Visualization Core: <u>DSA</u>, Operating Systems, Object Oriented Programming, Database Management, Computer Networks

Web Development: HTML, CSS, JavaScript

Tools: Git, VS Code, IntelliJ, MySQL, Linux, Figma, Canva

Positions of Responsibility

Head Teaching Assistant, IIIT Delhi

Aug 2024 – Dec 2024

• Led a team of 14 TAs for Intro to Programming course.

Instructor & Volunteer, IIITD Summer Camp

May 2024 – Jun 2024

• Taught programming and other activities to students of **Grade 6 to 9**.