



# Chinmoy Mitra

Contact No: +88 01708770617

✉ [rudrochinmoy@gmail.com](mailto:rudrochinmoy@gmail.com)    [Portfolio](#)    [Chinmoy Mitra](#)

 [Chinmoy17](#)  [Chinmoy17](#)

## Career Objective

---

Motivated Computer Science graduate specializing in web development with a strong proficiency in integrating AI technologies like Machine Learning and NLP into web applications. Skilled in deploying AI-driven solutions across various domains. Excited to contribute to innovative web projects while exploring AI and LLM integration for enhanced user experiences.

## Education

---

### Rajshahi University of Engineering and Technology

May 2024

Bachelor of Science in Computer Science and Engineering (**First Class**).

Rajshahi, Bangladesh

- **Relevant Coursework:** Data Structures and Algorithms (C++), OOP (C++, Java), Artificial Intelligence (Python), Neural Networks and Fuzzy Systems (Python), Digital Image Processing (Python), Linear Algebra with Computational Applications (Python), Computer Network, Computer Architecture.

## Experience

---

### Young Learner's Research Lab

November 2024 – Present

Research Assistant

Hybrid

- Collaborating on abstractive text summarization projects using state-of-the-art Large Language Models (LLMs) like LLaMA, DeepSeek, and Mixtral.
- Fine-tuning transformer-based models on benchmark datasets such as CNN/DailyMail and XSum using LoRA-based optimization techniques.
- Evaluating model performance with ROUGE and BERTScore metrics to measure summary quality and relevance.

### Outlier

March 2024 – Present

AI Contributor

Remote

- Engineered high-quality prompts and responses for tasks involving code generation, refactoring, reasoning, and summarization to improve LLM capabilities.
- Contributed to fine-tuning and training workflows for large-scale LLMs by generating structured datasets and evaluating model outputs.
- Reviewed and annotated diverse language tasks to ensure high accuracy, factual correctness, and contextual alignment with project guidelines.

## Technical Skills

---

**Programming Languages:** C, C++, Python, SQL

**Frameworks and Libraries:** TensorFlow, PyTorch, Scikit-learn, OpenCV, MediaPipe

**Web Technologies:** Flask, FastAPI, Streamlit

**Concepts and Tools:** Artificial Intelligence, Machine Learning, Deep Learning, Natural Language Processing, Computer Vision.

## Projects

---

### Portfolio Website ([GitHub](#)) | *React, Web Development, Responsive Design*

- Developed a responsive personal portfolio website utilizing React, showcasing a professional approach to modern web development practices.
- Implemented elegant UI components and seamless navigation to enhance user experience while focusing on performance optimization.

### Agentic AI: LLM-based Code Agent ([GitHub](#)) | *LLMs, Python, Prompt Engineering*

- Engineered a multi-agent system integrating OpenAI, LLaMA2, and Mixtral models to automate software development tasks including bug detection, test generation, and code explanation.

- Built using FastAPI for backend API orchestration and prompt routing across models.

#### **AI Painter ([GitHub](#))** | *Python, OpenCV, MediaPipe*

- Developed a gesture-controlled virtual painting tool using real-time hand-tracking, enabling dynamic brush/eraser modes, color selection, and image saving features.

#### **Bangla Vowel Detection ([GitHub](#))** | *Deep Learning, CNN, Transfer Learning*

- Built a transfer learning-based CNN model to classify handwritten Bangla vowels with 97.76% test accuracy using a fine-tuned MobileNet architecture.

#### **Blog Generation via LLMs ([GitHub](#))** | *LangChain, LLMs, Prompt Engineering*

- Constructed a modular blog generation pipeline leveraging LangChain and LLMs with components for topic-to-outline generation, fact validation, and coherence enhancement.

#### **SME Growth Success EDA ([GitHub](#))** | *Python, Logistic Regression, EDA*

- Analyzed a startup growth dataset to extract business success indicators, achieving 95.65% classification accuracy using a logistic regression model.
- Applied feature correlation analysis, outlier handling, and data visualization to support decision-making.

## Research Experience

---

### **Undergraduate Thesis: ([PAPER LINK](#))** | *Deep Learning, Transfer Learning, Python, Pandas, Numpy, Matplotlib*

#### **Title: Transfer Learning Based Multiclass Brain Tumor Classification Using MRI Data (Accepted at IEEE QPAN 2025)**

- Designed and implemented a Transfer Learning-based deep learning model with ResNet50 architecture for classifying brain tumor types from MRI data.
- Achieved an overall classification accuracy of 99.31% and significantly reduced computational training time.

## Achievements

---

- Class Representative, 4 consecutive years – led coordination for 60+ students
- Participated in RUET Codesmash Intra RUET programming contest – 2019.
- Participated in RUET GanJam Intra RUET programming contest – 2020.
- Received Technical Scholarship from RUET based on Admission Merit – 2019, 2022.

## Social Engagements

---

**Joint Secretary:** Of Rajshahi City Association - RUET, Rajshahi: October 2023 - August 2024.

**17 Shongkranti Rag Day of RUET 2017 series:** October, 2023

**RUET CSE Fest Cultural and Food Section:** June, 2022

**CSE Night Freshers' Reception and Cultural Program:** 2019, 2021, 2022, 2023

**Freshers' Reception Rajshahi City Association:** 2019, 2021, 2022, 2023

## References

---

- **Rizoan Toufiq**  
Associate Professor  
Rajshahi University of Engineering and Technology  
Email: rizoantoufiq@cse.ruet.ac.bd  
Phone: +880-1768496122