Abhilekh Borah

+919957145207 | abhilekhkey@gmail.com | **LinkedIn:** abhilekh-borah | **Github:** ethedeltae

EDUCATION

Manipal University Jaipur   Jaipur, Rajasthan

Bachelor of Technology in Computer Science and Engineering   *2022 – Present*

- Cumulative GPA : **8.9/10.0**
- Dean's List Excellence in Academics (In recognition of having received the Highest Grade Point Average in the First Semester - Faculty of Engineering)
- Relevant Coursework: Data Structures and Algorithms, Object Oriented Programming, Computer System and Architecture, Data Communication, Discrete Mathematics, Operating System, RDBMS, Statistics

Delhi Public School   Numaligarh, Assam

Senior Secondary (10+2) - Science Stream   *2020 – 2022*

- Percentage : **94%**
- Relevant Coursework: Physics, Chemistry, Mathematics, Python, SQL

EXPERIENCE

Summer Research Intern   May. 2024 – Present

Indian Institute of Technology, Guwahati

- Developing a *Continuous Sign Language Recognition and Translation* Framework for understanding *Gloss* in Sign Language Videos and converting it into spoken sentences.
- A **two-streamline** framework, the first one having a *Video to Gloss model*, and the second one being a *Gloss to Text Retrieval System.*

Research Intern   Oct. 2023 – Present

Indian Institute of Science Education and Research, Kolkata

- Integrating ancient Indian Ayurveda repositories with Large Language Models (GPT 4, Gemini-Pro, Claude etc.) yielding a framework leveraging *chain-of-thought* reasoning and *few-shot prompting* techniques for multi - query retrieval.
- Developed a **RAG** (Retrieval Augmented Generation) pipeline integrating *Langchain* and *FAISS* vector store for enhanced question-answering systems.
- Analyzed different prompting techniques based on *Doshas, Dhatus* and *Srotas.*

Research Intern   Jan. 2024 – May. 2024

Indian Institute of Information Technology, Allahabad

- Developed a **Deep Learning** framework for understanding and analyzing crowd behaviours in video footages, focusing on the detection of anomalies and unusual events.
- Utilized *Computer Vision* concepts such as *LSTM, ConvNets*, and *MIL* to develop a deep anomaly classification model that categorizes video segments into 8 distinct real-life crimes.

PROJECTS

AcharyaGPT | *SwiftUI, Python, GPT-3.5 Turbo, Langchain, ChromaDB*   **Project:** http://tinyurl.com/zf8k44fd

- An iOS chatbot app driven by a **RAG** (Retrieval Augmented Generation) pipeline for effortless discovery of tailored Ayurvedic formulations based on individual symptoms, patient attributes, and context.
- *Charaka Samhita* has been utilized for extracting information.

TaskVision | *SwiftUI, ARKit, Firebase/Firestore*   **Project:** http://tinyurl.com/2nekxjem

- An iOS app that leverages 3D models and augmented reality to transform to-do lists into interactive experiences, enhancing engagement, recall, and contextual task management.

- Users can incorporate 3D objects and attach text to serve as reminders in the form of To-Do tasks.
- Exports *Reality Composer* files to *.usdz* format and anchors it to a specific location in the real world.

Text Summarizer | *Hugging Face, Transformers, Python*   **Project:** https://tinyurl.com/ynp9vjdv
- A text summarizer application driven by *Facebook's Bart* transformer model trained on the *SamSum* dataset that contains about **16k** messenger-like conversations with summaries.
- **ROUGE** Score has been used for evaluation of the model.

Document Q/A System | *Llama Index, Gemini Pro, Python*   **Project:** https://tinyurl.com/bf8yshdc
- A **RAG** (Retrieval Augmented Generation) based *Information Retrieval* System employed for answering queries related to the uploaded document.
- *Llama Index* has been integrated for querying the proper context out of the document, enabling *Gemini-Pro* (Large Language Model) to generate efficient answers.
- *Streamlit* has been used for deployment purposes.

Technical Skills

Languages: Python, C/C++, Swift, Java
Frameworks: Langchain, LangGraph, Llama Index, SwiftUI, ARKit, RealityKit, CoreData, CoreLocation
Libraries: NLTK, Transformers, Tensorflow, PyTorch, Pandas, NumPy, Matplotlib, Scikit-learn

Non-Technical Skills

Music Production & Songwriting: Have produced and written over 6 original tracks published across *100+* platforms, amassing over **1 million** streams worldwide. Additionally, I play a variety of instruments including the *Guitar, Ukulele*, and *Keyboard*.

Public Speaking: Have actively engaged in various *debates*, *group discussions*, and *Model United Nations* events, earning recognition and awards for my participation.

Achievements

- Received the *Dean's List Excellence in Academics* certificate for having received the **Highest Grade Point Average** in the First Semester - Faculty of Engineering.

- Developed a *Graphical Image Authentication System* and emerged as the **winner** in the **Talent Hunt Hackathon** officially organized by *Manipal University Jaipur*, competing against 100+ teams.   .

- Built a solar-powered tricycle and secured the **4th** position nationwide out of 10,000+ participants in the **National Science Concours** 2015-16 conducted by *Pivotal India*.

Volunteering

Microsoft Learn Student Ambassador: Hold the position of a ***Beta** MLSA* amongst **4000** others, developed and hosted web applications and machine learning models using *Microsoft Azure* and *AzureML*, and actively connected with the community to conduct events and inspire peers with Microsoft technologies.

Clubs & Chapters

- **Project & Research Head** at *Manipal University Jaipur's ACM Student Chapter* where I have led various events, developed multiple projects, including setting goals and objectives, allocating resources, and ensuring that projects are completed within specified timelines and budgets.

- Contributed to the marketing initiatives for **MUJ Hack X**, the first ever *International Hackathon* organized by *Manipal University Jaipur*. Connected with multiple colleges, gathered essential information, and devised effective marketing strategies to elevate the event's visibility and participation.   .

Languages

- Assamese

- English

- Hindi