

Prashasti Priya

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Education

- **VIT Bhopal University**

B.Tech. in Computer Science and Engineering — CGPA: 9.14

May 2026

Skills

- Programming Languages & Tool: C, C++, Python, PyTorch, TensorFlow, PostgreSQL, Git, GitHub
- NLP & Transformers: Hugging Face Transformers, spaCy, NLTK, Tokenizers, T5, RoBERTa
- Data Processing, Visualization & Analysis: Pandas, NumPy, pdfplumber, Matplotlib, scikit-learn

Projects

- **DocuQA – Document Analysis & QA System** 🔄

Jan 2025 – March 2025

Tech Skills: Python, Hugging Face Transformers, NLTK, pdfplumber, T5, RoBERTa

- Built a comprehensive document analysis pipeline to reliably extract and preprocess text from PDFs using pdfplumber and NLTK, splitting lengthy documents into structured, manageable passages.
- Automated intelligent question generation for each document passage with a T5-based transformer model, ensuring consistently high-quality, context-aware questions to improve deeper document comprehension.
- Implemented a robust RoBERTa-based QA module to accurately provide answers to unique questions, optimizing the workflow for efficiency, scalability, and contextual relevance across diverse large documents.

- **MiniGPT – Transformer-based Language Model** 🔄

April 2025 – July 2025

Tech Skills: Python, PyTorch, Transformers, Tokenizers

- Developed a transformer-based language model in PyTorch with custom tokenization, embedding layers, sinusoidal positional encoding, and scaled dot-product self-attention for contextual learning.
- Built a TransformerBlock with residual connections, layer normalization, and feed-forward networks; trained the model using CrossEntropyLoss and Adam to predict the next word from incomplete text sequences.
- Enhanced model design with improvements including BPE tokenization, multi-head attention, larger embeddings, and training optimizations such as batching, gradient clipping, and distributed GPU scaling.

- **Bollywood Bias Buster – Gender Stereotype Detection** 🔄

Ongoing

Tech Skills: Python, spaCy, Hugging Face Transformers, TensorFlow, Pandas, NumPy, Matplotlib, scikit-learn

- Built an AI system with Hugging Face LLMs to detect gender stereotypes in Bollywood scripts using NLP methods like NER, co-reference resolution, and curated bias lexicons for robust narrative analysis.
- Designed a bias-reporting pipeline that tags lines with stereotype categories such as gendered occupations, appearance-based descriptions, and lack of agency, thereby quantifying and explaining narrative bias.
- Implemented a remediation module generating bias-free rewrites while retaining narrative context.

Achievements

- Winner – Lakecity Hack-2024 (No Code Hackathon, JLU Bhopal): Proposed smart glasses leveraging Computer Vision & NLP to convert hand signals into speech and spoken words into subtitles, enhancing accessibility.
- Flipkart Grid 7.O: Reached Semi-Finals among 1.6L+ participants, showcasing problem-solving skills.

Activities

- Volunteered at International English Conference (Nov 2023), as part of event management team coordinated with professors from 10+ states and 5+ countries, ensuring smooth execution for 200+ attendees.
- Sports: Gold medal in Arambh22 Basketball (Defender) and Advitya23 Cricket (Team Event).

Hobbies

Mandala art, Table tennis, Basketball, Cooking