Ritika Tyagi

+91 9560022617 | ritiktyagi0501@gmail.com | LinkedIn

EDUCATION

Bachelor of Technology (B. Tech), Vellore Institute of Technology, Bhopal (VIT Bhopal)

07/2027

- Major: Computer Science & Engineering (GPA: 8.78)
- Relevant Coursework: DSA, OS, DBMS, Linux, Computer Architecture, AWS Cloud Practitioner

RELEVANT SKILLS

- Programming Languages: Python, C++, Java, C, HTML, MySQL/SQL, MATLAB, Julia, and R
- Frameworks: Tensorflow, Keras, NumPy
- Language Skills: English (Fluent), Hindi (Native), Japanese (Beginner)

EXPERIENCE

Google Developer Groups, VIT Bhopal

10/2024 - Present

Co-Lead, Design Team

- Co-led a team of 4 designers and guided them in design concepts, ideas, tools, and best practices through brainstorming sessions and group reviews.
- Designed 20+ promotional materials (posters, logos, standee, flyers) while maintaining brand consistency and the essence of Google. Collaborated with the content and videography team to improve the events' visibility and participation.

PROJECTS

EcoEngine, Paper 11/2024 - Present

(Unreal Engine, Convai, MetahumanAI)

- Presented this research paper at *IDBA 2025*, 5th *International Conference on Data Science and Big Data Analytics*, & submitted to be published in the *Springer* Book Series "*Learning and Analytics in Intelligent Systems*".
- Designed an AI-powered chatbot in Unreal Engine using Convai and OpenAI's GPT-4 LLM to enhance climate education.
- Supports text and voice inputs in multiple languages, including Hindi and English, with potential for expansion.
- Calculates the carbon sequestration rate of a region based on factors such as tree species, soil type, and environmental conditions.
- Implementing a reward system to incentivize individual or community efforts in reducing carbon emissions.

Music Genre Classifier 11/2024

(Python, TensorFlow, Keras)

- Built a TensorFlow deep learning model achieving 90%+ accuracy in classifying the genre of a 30-second audio clip.
- Used 2D-CNNs for classifying the features extracted by the librosa library, visualized the data using wave and spectrogram.

Clothes Prediction ML Model 08/2024

(Python, Tensorflow)

- Developed a TensorFlow-based deep learning model using the Fashion MNIST dataset to classify items of clothing.
- Used a total of 70,000 features, of which 60,000 were for training and 10,000 were for testing.
- Used 2D-CNNs to classify images into 1D vectors and achieved a training and testing accuracy of 97.63% and 91.97%

Out in Tech, Website

Web Developer, Digital Corps Team

- Contributed to the development of two websites for LGBTQ+ groups: Collective Talas (Serbia) and 6rang (Iran).
- Collective Talas website aims to connect and improve all TIGV people in Serbia. It currently has 13k+ views and 7.1k+ visitors from all over the world.
- The second website raised awareness and pressured the government about two queer people falsely convicted and sentenced to death in Iran. In November of 2023, one of them was set free.

Library Management System, Paper

06/2022

(Python, MySQL, Tkinter, smtplib, datetime, PIL)

- Developed a Tkinter-based GUI with MySQL database integration, smtplib to send emails for overdue materials and holds, working with PIL and pytesseract to add features like image search.
- Built a book and student record search feature with external search integration (Amazon, Flipkart, Google), book issuance, returns, modifications, and stock modification features that return indexed lists.

PRIDE, Girls Who Code 08/2021

(HTML, CSS, JavaScript)

- Built an activist toolkit for the LGBTQ+ community using HTML, CSS & JavaScript under the mentorship of Morgan Stanley.
- The website provides users with information about the community, resources for getting involved, and helplines in the form of websites, content creators, etc.

AWARDS & EXTRA/ CO-CURRICULAR

TechnoSavvv'23, Ryan International School, Greater Noida

2022-2023

• Facilitated with the annual computer science award by the managing director of Ryan Group, Madam Grace Pinto.

Hack@Jaipuria, Seth Anandram Jaipuria School, Ghaziabad

2022-2023

• 24Hr hackathon organized in collaboration with IIT-Delhi and Rancho Lab, Bagged 3rd position among 50+ participating schools. **National Cadet Corps (NCC),** Ryan International School, Greater Noida 2019-2023

• A & B level Certificate; 2 CATC Camp Certificates; Runners-Up in Poster-making, marching/drill & Choir Singing (2019, 2021)