Abhisekh Kumar

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Education

Cambridge Institute of Technology	**Dec 2020 - May 2024**
B.E. in AIML || CGPA: 7.9/10 || 71.9 %	

Kendriya Vidyalaya ASC Centre	**2020**
CBSE(Class 12) || 80.8%	*Bangalore, Karnataka*

Kendriya Vidyalaya ASC Centre	**2018**
CBSE(Class 10) || 88.4%	*Bangalore, Karnataka*

Experience

Samsung Research and Development || Internship — **Nov 2022 - Jun 2023**
Phonetic Model for Indian Languages — *Bangalore, Karnataka*
Tensorflow || Keras || Numpy || One Hot Encoding

- Developed a Deep Learning model to translate 4 Indian languages (Hindi, Bengali, Malayalam, Kannada) into English phonemes.
- Achieved an F1 score of 81 for Indian language phoneme translation and is comparable to SOTA models.

10 Seconds — **Oct 2023 - Nov 2023**
Technical Training Internship — *Bangalore, Karnataka*

- Completed a training cum internship course that includes different sections of Technical and Soft skills.
- We learned different languages such as C/C++, Python along with projects and different soft skills.

Projects

Generative AI Based Video Generation for Classical Dance || (R&D) — **2023 - 2024**
Python || ML Model || BLIP2 Pre-processor

- Engineered an AI model to generate realistic Bharatnatyam dance sequences from textual descriptions.
- Implemented a refined model pipeline utilizing BLIP 2 pre-processor to create realistic avatar movement and integration of human mapping in avatar with real captured data of human movements

Gesture Driven Autonomous Flight of Drones ||Final year project — **2024**
Mediapipe || Tensorflow || OpenCV || DJITelloPy

- Developed a real-time gesture control system for autonomous drone navigation with 86% accuracy.
- With accuracy of 90% in gesture recognition and precise drone control for 4 functions i.e., take off&hover, forward motion, backward motion and landing.

Object Detection App || Mobile Application — **2023**
Java || Tensorflow lite Model || Android Studios

- Developed an android application using Java in Android Studio for object detection using Tensorflow model in background.
- Integrated Webview to provide users with information on detected objects, ensuring privacy through on-device data processing.

Portfolio || Self Project — **2024**
TypeScript || JavaScript || HTML ||CSS

- Constructed a modular and single-page application using React, organizing content into distinct sections for intuitive navigation.
- Leveraged Reacts component-based architecture to build a personal website, promoting code reusability and maintainability.

Skills

Technical skills:C/C++, Python, JavaScript, Java, HTML/CSS, SQL
Developer Tools: VS Code, Anaconda Navigator, NetBeans, Android Studio, Git - GitHub, Canva, MS Office.
Soft Skills: Management, Communication, Content Delivery, Presentation and Interpersonal Skills.
Languages: English and Hindi.