# **Bhupendra Huidrom**

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#### **EDUCATION**

B.Tech (Bachelor of Technology) in Computer Science and Enginnering Sikkim Manipal Institute of Technology CGPA 7.69

07/2019 – 07/2023 Majhitar, India

#### PROFESSIONAL EXPERIENCE

#### **Graduate Engineer Trainee**

01/2024 – present Noida, India

Ericsson

BCSS (Business Area Cloud Software & Services)

- Linux scripts to automate data processing and management tasks in the mediation workflow by performing tasks such as file manipulation, data conversion.
- SQL for data manipulation and analysis within a telecom billing mediation platform.

#### **PUBLICATIONS**

# Detection and Segregation of Plastic Waste using a Robotic Arm. ISSN: 2395-5295 (Online) ${\mathscr E}$

01/2024

Grenze International Journal of Engineering and Technology (GIJET)

- Trained and fine-tuned YOLOv5 model to detect and classify plastic waste objects with 90%+ accuracy, resulting in a 50% reduction in false positives and increased operational efficiency.
- Meticulously fine-tuned hyperparameters within YOLOv5 to optimize the detection accuracy, ensuring a minimal margin of error and improved overall performance by 15%.
- Integration of a Robotic Arm with Raspberry Pi. This enabled us to automate the segregation process immediately upon the detection of plastic waste, improving both speed and efficiency.

### **PROJECTS**

#### Personal Portfolio Webpage &

07/2023 - 07/2023

- A personal portfolio website showcasing a collection of projects and skills.
- Utilized CSS for styling, incorporating a modern and cohesive design that reflects a keen eye for aesthetics.
- Implemented JavaScript for interactive elements, enhancing user engagement and providing a dynamic browsing experience.
- Successfully deployed the portfolio website using Netify, making it accessible online for potential
  employers and collaborators.

# LLM-ChatBot-test ∂

02/2024 - 02/2024

- Developed an AI-powered financial advisor bot using Streamlit and OpenAI's GPT-3.
- Enhanced chatbot functionality through seamless integration with Langchain's (LLMChain) technology.
- Effective conversation flow by providing clearly instructed prompts and gather user information with custom prompt templates.
- Engineered the integration of Google Sheets as a dynamic database for real-time user financial data management; amplified chatbot's personalized financial advice capabilities and user experience optimization.

#### Conversational Document Analysis and Retrieval System &

03/2024 - 03/2024

- A Streamlit application for conversational document analysis and retrieval, integrating Retrieval Augmented Generation (RAG system) techniques.
- Extracted text from PDF documents using PyPDF2 and utilized Langchain for text splitting and generating embeddings.
- Integrated OpenAI's language model for conversational responses and implemented a local database (FAISS) for efficient storage and retrieval of text chunks.
- Users can ask questions about uploaded documents, with the system retrieving relevant information from the text and maintaining conversation history using a conversational retrieval chain with memory.

#### **Voice Assistance Using Python**

12/2021 - 05/2022

- Built a voice assistance system using Python, which recognizes spoken commands with high accuracy.
- To enhance the user experience, I employed the SpeechRecognition module, ensuring the voice recognition component performed seamlessly.
- Leveraged Pyttsx3 module for converting text to speech, employing the Sapi5 technology for high-quality and natural-sounding responses.

#### **SKILLS**

Python | C++ | Linux | Java Script | HTML | CSS | ReactJs | Front-End Development | MySQL | DBMS | Bootstrap | Computer Vision | Machine Learning | LLM | LangChain | StreamLit

## Field of Interest

Front-End Web Development, Software Development, Computer Vision, NLP

#### **ORGANIZATIONS**