



P V Rohith Kumar

Roll No.: 224156017

M.Tech Robotics and Artificial Intelligence
Indian Institute Of Technology, Guwahati

+91-9949023381

pv.rohith@iitg.ac.in

rohithkumarpv1655@gmail.com

Linkedin | Github | Portfolio

EDUCATION

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
M.Tech	Indian Institute of Technology, Guwahati	8.11	2022-Present
B.Tech CSE	Sreenidhi Institute of Science and Technology	8.23	2018-2022
Intermediate	Telangana State Board of Intermediate Education	96.7%	2018
Secondary	CBSE Board	9.0	2016

PROJECTS

- Subaquatic Debris Detection and Analysis** Ongoing
M.Tech Project, Dr. P. K. Das, Professor, Dept. of CSE, IIT Guwahati
– Aim of the project is to enhance underwater video through **image processing** methods, employing **object detection** and **classification** techniques for underwater debris identification.
- Fashion Recommendation System** Feb. 2022 - May 2022
B.Tech Project, Ms. Archana Nagelli, Assistant Professor, Dept. of CSE, SNIST Github
– Developed and designed a real-time application catering to multiple users, enabling them to curate their **personalized virtual wardrobes**.
– Implemented a **multi-input CNN** architecture to facilitate the generation of outfit choices from the user's wardrobe.
– **Tools/Technologies used:** Tensorflow, Flask, Scikit-learn, OpenCV, HTML, CSS, JavaScript, SQLite.
- Finding Point of Deviation in a Specific Domain Chat** Sep. 2022 - Nov. 2022
Course Project, Dr. Amit Awekar, Associate Professor, Dept. of CSE, IIT Guwahati Github
– Developed a multi-user chat interface and enabling real-time interactions.
– Utilized **two servers**: one for providing chat application components (HTML/CSS/JS) and a Flask server for message handling. Flask server incorporates **SentenceBERT** to compute cosine scores and returns them.
– Implemented a **dynamic threshold** based on past messages for predicting message relevance.
– **Tools/Technologies used:** Sentence-Bert, HTML, CSS, JavaScript.
- Distracted Driver Detection** April 2023 - May 2023
Course Project, Dr. Debanga Raj Neog, Assistant Professor, Mehta Family School of DS and AI Github
– Implemented models like **PCA-KNN**, **Autoencoder-KNN**, **custom CNNs**, **VGG16**, **ResNet50**, and **MobileNet** to accurately identify unsafe driver behavior patterns.
– Implemented data splitting to prevent **data leakage** and **quantization** aware training to optimize pre-trained models, enhancing efficiency and minimizing model size.
– Integrated **YOLOv8** for real-time detection and classification.
– **Tools/Technologies used:** Transfer Learning, YOLOV8, Scikit-learn, Keras, LabelImg.
- Smart Healthcare System For Predicting Diseases** Oct. 2021 - Dec. 2021
B.Tech Minor Project, Mrs. N. Sudha Rani, Assistant Professor, Dept. of CSE, SNIST Github | Website
– Developed and Designed a real time application for multi users to check results of multiple disease which can be predicted using the report data or x-ray scans using machine learning and deep learning.
– Employed machine learning techniques such as **Decision Tree**, **Naive Bayes**, **Random Forest**, **SVM**, and **XGBoost**.
– Integrated the **Grad-CAM** visualization to provide insights about factors influencing the model's disease predictions.
– **Tools/Technologies used:** Scikit Learn, Keras, Flask, Opencv, HTML, CSS, Explainable AI.

TECHNICAL SKILLS

- Programming:** Python, C++
- Web Technologies:** HTML, CSS
- Database Management:** MySQL
- ML Libraries:** SKlearn, Tensorflow, OpenCV, NLTK
- Operating Systems:** Windows
- Web Framework:** Flask

KEY COURSES TAKEN

- CS Fundamentals:** Data Structures, Design and Analysis of Algorithms, Operating System, Database Management System, Computer Networks.
- AI/ML:** Neural Networks for NLP, Artificial Intelligence, Image Processing with Machine Learning.
- Mathematics:** Mathematics for Computer Science, Probability and Statistics.

ACHIEVEMENTS AND EXTRA CURRICULAR

- Gate Computer Science 2022**, Secured **AIR 546** among 77257 candidates. 2022
- Spotle AI-thon Level I**, Secured **rank 20** out of 7108 participants. 2020
- Teaching Assistant, RA504:** Programming Laboratory. 2023-Ongoing