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EDUCATION

Degree	Institute/Board	CGPA/Percentage	Year
M.Tech	Indian Institute of Technology, Guwahati	8.22 (Current)	2022-current
B.Tech	Jalpaiguri Government Engineering College	8.75	2017-2021
Higher Secondary	West Bengal Council of Higher Secondary Education	86.20%	2017
Secondary	West Bengal Board of Secondary Education	89.71%	2015

PROJECTS

- **Vehicle and Pedestrian Detection in Adverse Weather** | **MTech Project**   *July 2023 - ongoing*
  Dr. Pinaki Mitra, Associate Professor, CSE, IITG
  − Testing out different **Deep Learning based** object detection techniques to detect vehicles and pedestrians considering the adverse weather.
  − Primarily this project aims to make significant improvement in autonomous driving system even if the weather goes bad.
  − Tools: PyTorch, Python

- **Real-time Drowsiness Detection** | **Course Project** | *April 2023-May 2023*
  Dr. Debanga Raj Neog, Assistant Professor, DSAI, IITG   t.ly/8IFcm
  − It aims to develop a real-time drowsiness detection system for individuals in a video feed which can be deployed to driver-safety application.
  − Finetuned **YOLOv5 Model** for **object detection** on UTA-RLDD dataset to solve our purpose and achieved an accuracy of more than **60%** .
  − Tools and Technologies used : Python, Tensorflow, Wandb.

- **Speech Based Dictionary** | **Course Project** | *October 2022-November 2022*
  Dr. Pradip Kr. Das, Professor, CSE, IITG   t.ly/kpvZR
  − Developed application intended for users who are looking for translation of common english words into another language of user's choice (in this case hindi is choosen).
  − Implemented **Linear Predictive coding** for processing speech signals and **Hidden Markov Modelling** for word recognition in **C** programming language and achieved an accuracy of more than **75%**.
  − Tools and Technologies used : C, Visual Studio, Cool Edit.

- **Memory Management Technique (MMT) Simulation** | **Course Project** | *May 2023*
  Dr. Moumita Patra, Assistant Professor, CSE, IITG   rb.gy/tzvzp
  − Developed a simulation program of several memory management techniques in C++.
  − Implemented **demand paging system** that loads pages from disk to memory on demand, a **data-generator** to generate random data requests
  − **LRU** and **FIFO** page replacement algorithm is used.
  − Compared the performance of paging system between above mentioned page replacement algorithms.
  − Tools and Technologies used : C++.

SKILLS

- **Programming Languages**: Java, C/C++(*), Python (*)
- **Database Management** : SQL
- **Operating system** : Windows, Linux(*)

* Elementary proficiency

KEY COURSES

- **CS512**: Design and Analysis of Algorithms
- **CS513**: Data Structures Lab
- **CS566**: Speech Processing
- **CS558**: Computer Systems Lab

ACHIEVEMENTS

- **GATE 2022**: All India Rank **289** among **77257** candidates   *2022*
- **Batch Topper in 12th** : Secured highest marks in my batch   *2017*
- **Batch Topper in 10th** : Secured highest marks in my batch   *2015*

EXTRA-CURRICULARS

- **Teaching Assistant**: CS341: Computer Network , CS110: Computing Lab   *2022-2023*