

Chukka Sai Satya Sumedha

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EDUCATION

INDIAN INSTITUTE OF TECHNOLOGY

Bhubaneswar.

BTECH AND MTECH IN COMPUTER SCIENCE AND ENGINEERING

Nov 2020 - May 2025

Cum. GPA: 8.17

MP AND EV ENGLISH MEDIUM SCHOOL

12TH STANDARD

CBSE

Percentage: 92.6

MP AND EV ENGLISH MEDIUM SCHOOL

10TH STANDARD

CBSE

Percentage: 87

SKILLS

PROGRAMMING

Languages:

C++ • C • Python • SQL

Deep Learning:

Tensorflow • Pytorch • Keras •

Scikit-learn • Numpy • Pandas

Databases:

MySQL • MongoDB

Libraries:

React JS • Node JS

Frameworks:

Bootstrap • Linux • API

Softwares/Tools:

Vscode • Github • Kaggle • Google Colab

COURSEWORK

UNDERGRADUATE

- Data Structures and Algorithms
- Database management systems
- Machine Learning
- Operating Systems
- Computer Networks

OFF COURSE

- Object Oriented Programming
- Web Development
- Advanced DSA
- Deep Learning

EXPERIENCE

AHRC | RESEARCH INTERN

Duration: May 2024 – July 2024

- Assessed the capability of Mistral AI LLM in performing ToM tasks, specifically focusing on its ability to infer and reason about the mental states of others based solely on textual input by integrating diverse NLP techniques
- Finetuned the Mistral AI LLM with varied prompts, enhancing its performance by 25%.

PROJECTS

MITIGATING MEDIA BIAS THROUGH PRETRAINED LANGUAGE MODELS | TRANSFORMERS

Jul 2024- April 2025 | MTech Project

- Built a custom dataset from YouTube and Reddit comments on Kolkata Rape Case that took place in 2024.
- Used classification models for bias and sentiment detection, followed by Retrieval-Augmented Generation (RAG) with dual-headed prompt retrieval and Qwen-2.5 for context-aware debiasing.
- Evaluated performance using metrics like accuracy, F1-score, BERTScore, Sentence Similarity, and BLEU score, achieving up to 74% effective debiasing.

BRAIN TUMOR DETECTION | DEEP LEARNING

Aug 2023- Oct 2023 | Self Project

- Built a brain tumor detection model using VGG 16 Neural Network Architecture in Tensorflow and Keras.

CREDIT CARD FRAUD DETECTION | MACHINE LEARNING

Feb 2022- Apr 2022 | Self Project

- Performed Data pre-processing, EDA and Univariate and Bivariate analysis on highly imbalanced dataset.
- Utilized Machine Learning algorithms such as Logistic Regression and KNN and performed grid search to identify the optimal set of parameters for the models. Achieved classification recall up to 93 percentage.

METRO RAIL APP | DATA STRUCTURES

August 2021- Oct 2021 | Course Project

- Implemented a metro travel app aimed at optimizing route selection for economical and time-saving travel.
- Developed the app using Dijkstra's algorithm for shortest path calculation, ensuring efficient route optimization.

ACHIEVEMENTS

- Secured rank under the top **7%** in JEE Advanced 2020 among more than 1,60,000 students from all over India and **99.28** percentile in JEE Mains 2020.
- Secured KVPY 2020 Fellowship among **0.15** million students.
- Ranked among the top **1%** of candidates across the nation in the National Standard Examination in Chemistry (NSEC).

POSITIONS OF RESPONSIBILITY

- Worked as Teaching Assistant for DBMS and Data Structures Laboratory.
- Core Head Member of Clix society at IIT Bhubaneswar.