# Hassan Muhammed Ahsan

8374519886

**Computer Engineering** **B.Tech**

Indian Institute of Technology Design & Manufacturing Kurnool, India

Hyderabad, Telangana

**ahassanforwork@gmail.com** | **LinkedIn** | **Github** | **Portfolio**


| Examination | University | Institute | Year | CPI/% |
|---|---|---|---|---|
| B.Tech | IIITDM Kurnool | IIITDM Kurnool | 2018 - 22 | 6.93 |

## TECHNICAL SKILLS

- **Programming & Scripting Languages**: Snowflake, C, Go, Python, SQL, Oracel Databases, HTML, CSS, MS SQL*,Bash*
- **Frameworks**: OpenCV, TensorFlow, Flask, OpenFaaS
- **Tools & Libraries**: Tableau, PowerBI, LaTeX, Kubernetes, Docker, GIT, MySQL, Figma*, SQLite*,
- **Platforms:** Linux*, Web, Windows, MS Excel, MS Word, MS Power point
- **Soft Skills:** Leadership, Event Management, Writing, Time Management, Public Speaking

## INTERNSHIP

- **Research Intern** | ***Samsung R & D India (Samsung Prism)*** *(May'21-Nov'21)*
  - **Work Done**: Developed an Audio Source separation model for extraction of 4 different audio categories from a given audio track using TensorFlow, UNets, Auto-Encoders, and Librosa to be intergrated into a Flutter based application for Android
  - **Implementation**: Implementation: The Audio separation model which extracts the bass, drums, vocals, and other category audios from the given audio file implementing Fourier transforms .
  - **Result**: Deployed a model that generates separated audios of the above categories with a mean absolute error(MAE) of 1.3733 .
  - **Tech Stack**: TensorFlow, Python, Flutter, UNets, Auto Encoder, & Librosa

## THESIS & SEMINAR

- **Traffic Aware Scaling Optimization in OpenFaaS** | *(B.Tech Project )* *(Dec'21-May'22)*
  - **Work Done:**Proposed and Implemented a traffic aware scaling algorithm for the OpenFaaS platform for changing the static parameters during scaling
  - **Impacts:** Improved run-times and request handling for Data Science functions implemented in FaaS model in OpenFaaS framework
  - Reduced response time in the proposed design by 50% compared to time taken in Default Static Scaling implementation
  - **Future work:**To improve the OpenFaaS for intense Batch processing and Machine Learning
  - Use Asynchronous function making the container run longer and with NATS Jetstream
  - **Tech Stack**: FaaS, PaaS, Shell Scripting, GO, Flask, Docker, & Kubernetes

## COURSE PROJECTS

- **SPEECH TO TEXT CONVERSION** *(May'21-Dec'21)*
  - **Work Done** on speech to text conversion system using **LPC**(Linear Predictive Coding), RNN, HMM, & PyDub
  - The system, implemented using a block chain on a banking server, can accept input from various sources, including video or live voice, assisting underprivileged individuals.
  - **Tech Stack**: Python, PyDub, Graphql, RNN, & HMM
- **CLASSIFICATION FOR CLOSED EYES** *(Jan'21-Mar'21)*
  - **Work Done** for the prediction for open or closed eyes, which uses Tflite model & OpenCV.
  - **Impact:** Implemented a suitable program that recognizes and classifies the eyes of the user using a live feed.
  - **Tech Stack**: Python, Tflite, & OpenCV

## POR & EXTRA-CURRICULARS

- **Delegated** arrangements & **Administered** the College Fest *(Feb'18 & Mar'19)*
- **Organised & Spearheaded** 2000+ student's for Science Day *(Feb'19)*
- **Chaired** Broadcasting Team of Science Day *(Feb'19)*
- **Core Member** of the Hostel and Mess *(Aug'19 - Mar'22)*
- **News Letter Core Member** at IIITDM Kurnool *(Dec'21 - Mar'22)*
- **Coordinator** of Social Service Group *(Aug'19-Mar'20)*

** Have basic/beginner-level knowledge*