

# V S Abhinav Rahul Gandrakota

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## EDUCATION

### BITS PILANI

B.E. ELECTRONICS &  
INSTRUMENTATION  
2019-2023 | Hyderabad, India  
MINOR IN DATA SCIENCE  
2021-2023 | Hyderabad, India

## COURSEWORK

### UNDERGRADUATE

Discrete Mathematics  
Data Structures and Algorithms  
Operating Systems  
Object Oriented Programming  
Foundations of Data Science  
Applied Statistical Methods  
Machine Learning  
Artificial Intelligence  
Natural Language Processing  
Linguistics

## SKILLS

### PROGRAMMING

**LANGUAGES:**  
Python • C • C++ • Java • Matlab •  
SQL • AIML

### TECH STACK:

NumPy • Pandas • PyTorch •  
Tensorflow • Flask • SpringBoot

## CERTIFICATIONS

### MACHINE LEARNING

Coursera | 8 Weeks | MATLAB

### DEEP LEARNING SPECIALIZATION

Coursera | Ongoing | Tensorflow

## EXTRA CURRICULARS

### CLUBS

#### ENGLISH LANGUAGES & ACTIVITIES SOCIETY:

Parliamentary Debating

#### PHOENIX:

Robotics

(LaW Follower, Sequential Co-op, Quadcopter)

## WORK EXPERIENCE

### NORTH EASTERN SPACE APPLICATIONS CENTRE | ML INTERN

May 2021 - July 2021 | Summer Internship

- Worked in a team of 5
- Project involved development of DL pipeline for 3D semantic segmentation task performed on drone and satellite generated images
- Web based/Desktop based visualization of results using inference servers; here 'Triton Inference Server'

## PROJECTS

### SIGN LANGUAGE TRANSLATION | NLP • DL • COMPUTER VISION

Mar 2022 – Apr 2022 | PyTorch • Transformers • Huggingface

- End-to-end model consists of CNNs, Transformer encoder layer and Transformer decoder layer
- Processed video sequences containing German Sign Language and produced translated German text
- Heavily fine-tuned the pre-trained T5-small model to leverage its existing German knowledge
- Github Repo: //Sign-Language-Translation

### ALZHEIMER HELPER | AI CHATBOT

Sep 2020 – Nov 2020 | Flask • SQLite

- An Artificial Intelligence chatbot written using Python and AIML deployed on a Flask server API
- Allows Alzheimer patients to ask questions regarding themselves
- The patient's data and conversation with the chatbot is stored in an SQLite database on the server
- Github Repo: //AlzheimerHelper

### LANGUAGE IDENTIFICATION FOR AUDIO INPUTS | NLP

Sep 2022 – Dec 2022 | Tensorflow • Sklearn • Librosa

- Led a team of 3 for the project
- Preprocessed audio inputs consisting of 6 different Indian Languages using MFCC's.
- Trained both CNN and CRNN on the dataset and compared accuracy of language prediction.
- Github Repo: //Audio-Language-Identification

## RESEARCH

### BITS PILANI | UNDERGRADUATE RESEARCHER

Aug 2022 - Dec 2022 | Hyderabad, India

Worked with **Prof Ankur Bhattacharjee** on using AI/ML based algorithms for development and optimization of an efficient thermal management system for Vanadium Redox Flow Battery under different charge-discharge conditions for Electric Vehicle applications