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EXPERIENCE

- **Aerocraft Engineering (I) Pvt. Ltd.** Ahmedabad, Gujrat, India
AI/ML Developer October 2024 – Present
 - **Document Intelligence:** Ran evaluations and benchmark performance on OCR models. Explore different OCR functionality involving angle classification which later became part of internal pipeline for table extraction from images. Explored SOTA Table extraction models and developed a pipeline for tabular data extraction, resulting in a **19%** performance improvement over the current pipeline. Developed and deployed the docker image of document intelligence API as an add-on for the internal project followed by A/B testing against previous versions.
- **ABAX.AI (Speech Lab@SCSE, NTU)** Remote, Singapore
Research staff (contract) May, 2024 – October 2024
 - **Speaker Diarization:** under the supervision of Prof Dr Chng Eng Siong (SCSE, Nanyang Technological University, Singapore). My work was on unsupervised clustering approaches and speaker representations, with the aim of minimizing clustering errors to enhance performance on datasets from the DIHARD III challenges.
- **LEAP LAB@ Indian Institute of Science** Karnataka , India
Project Assistant March, 2024 – May 2024
 - **NLTM:** I worked under guidance of Prof. Dr. Sriram Ganapathy (EE Department, IISc). I implemented an E2E API for both language diarization and speaker diarization for Indic languages and deploying them on the GCP . I successfully hosted a Kaldi-based pipeline, wrapped as an API
- **SMILE lab @ National Institute of Technology Surathkal** Karnataka, India
Junior Research Fellow August 2022 – November 2023
 - **NLTM:** Worked under the guidance of Prof. Dr. Deepu Vijayasenan (ECE Department, NITK) on a project funded by BHASHINI, MeITY. Co-organized the 'DISPLACE Challenge' at Interspeech 2023. Developed a language diarization pipeline for multilingual datasets, with a focus on Indian languages. Fine-tuned large language identification model ECAPA-TDNN on multilingual datasets such as VoxLingua107 and IndicSUPERB. The pipeline's inference on the challenge evaluation set achieved a DER score of **30**, securing a **top 3** position on the challenge leaderboard.
- **stride.ai** Karnataka, India
Data Science Intern February 2022 – April 2022
 - **Document Intelligence:** I worked with image processing techniques to extract valuable insights from images by performing OCR tasks to extract text from images. I have explored various techniques for information extraction from tabular data and have developed a pipeline for intent and entity detection within this domain.
- **Marsview.ai inc** Remote, India
AI / NLP Intern May 2021 – October 2021
 - **Conversational AI:** Developed a chatbot pipeline using RASA and ParlAI where i integrated Speech Synthesis Markup Language (SSML) tags for customizing audio responses with respect to emotion recognition. I trained an CNN-based NN model for spoken emotion recognition on custom datasets with a focus on multilingual capabilities.

EDUCATION

- Bharati Vidyapeeth deemed to be University, College of Engineering Pune Maharashtra, India Bachelor of Technology. in Computer Engineering, [**CGPA: 9.00** , **July, 2018 – July, 2022**]

PUBLICATIONS

- Summary of the DISPLACE Challenge 2023: Diarization of Speaker and Language in Conversational Environments. **Speech Communication**, doi: 10.1016/j.specom.2024.103080.
- The DISPLACE Challenge 2023: Diarization of Speaker and Language in Conversational Environments, **Proc. INTERSPEECH 2023**, pp. **3562-3566**, doi: 10.21437/Interspeech.2023-2367.