

SATHVIK UDUPA

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EXPERIENCE

BUT Speech, FIT, Brno University of Technology
Junior researcher

Sept 2024 - present
Brno, Czechia

- Working on research problems in speech and language processing such as spoken dialogue systems, audio understanding.

SPIRE Lab, EE, Indian Institute of Science
Research associate

Sept 2020 - Aug 2024
Bangalore, India

- Worked on speech recognition and synthesis projects funded by GIZ, Gates Foundation and Google. (<https://syspin.iisc.ac.in>, <https://respin.iisc.ac.in>, <https://vaani.iisc.ac.in>)
- Led and published multiple research projects in top-tier conferences, including Interspeech, ICASSP, and ASRU, focusing on speech recognition, speech production, and speech synthesis.

MyHealthcareAI
Deep learning engineer

June 2019 - March 2020
Bangalore, India

- Worked on an NLP systems along with speech and vision-based Parkinson's detection.

SPIRE Lab, EE, Indian Institute of Science
Research intern

Feb - June 2019
Bangalore, India

- Worked on a research project on speech-based motor neuron disorder classification.

EDUCATION / COURSES

Brno University of Technology, Brno, Czechia
Graduate Student

2024-present

Ramaiah Institute of Technology, Bangalore, India
Bachelors in Engineering in Electronics and Communications

2015-2019

SELECTED PUBLICATIONS

Full publication list available at: <https://scholar.google.com/citations?user=Bi1QvpIAAAAJ&hl=en>

Kumar, Sonal, et al. "MMAU-Pro: A Challenging and Comprehensive Benchmark for Holistic Evaluation of Audio General Intelligence", AAAI 2026

Kumar, Saurabh, et al. "RESPIN-S1.0: A read speech corpus of 10000+ hours in dialects of nine Indian Languages", NeurIPS 2025

Sathvik Udupa, et al. "Streaming Endpointer for Spoken Dialogue using Neural Audio Codecs and Label-Delayed Training", ASRU 2025

Sathvik Udupa, et al. "Adapter pre-training for improved speech recognition in unseen domains using low resource adapter tuning of self-supervised models", Interspeech 2024

Sathvik Udupa, et al. "IndicMOS: Multilingual MOS Prediction for 7 Indian languages", Interspeech 2024

Sathvik Udupa, et al. "Gated Multi Encoders and multitask objectives for Dialectal Speech recognition in Indian languages", ASRU 2023

Sathvik Udupa, et al. “Real-time MRI video synthesis from time aligned phonemes with sequence-to-sequence networks”, ICASSP 2023

Sathvik Udupa, et al. “Improved acoustic-to-articulatory inversion using representations from pre-trained self-supervised learning models”, ICASSP 2023

Sathvik Udupa, et al. “Streaming model for Acoustic to Articulatory Inversion with transformer networks”, Interspeech 2022

Sathvik Udupa, et al. “Estimating articulatory movements in speech production with transformer networks.”, Interspeech 2021

ACHIEVEMENTS

Won the expert panel award at Excel 2025, Brno University of Technology.

Won the JCMM scholarship (2024-2026) for MIT-EN programme at Brno University of Technology.

Won best hackathon project at SLT 2022, Doha, Qatar.

Received travel grant from Microsoft Research for INTERSPEECH 2022.

Received full registration cover + travel grant for INTERSPEECH 2021.

Best project in Pradarshana 2019 - final year project exhibition at Ramaiah Institute of Technology.

1st place in IEEE National Level project exhibition, Kagada, UVCE, Bangalore.

VOLUNTEERING & OPEN SOURCE CONTRIBUTIONS

JSALT’25

- Participated as a full-time member in Team AuGI (Advancing Expert-Level Reasoning and Understanding in Large Audio Language Models) (<https://jsalt2025.fit.vut.cz/summer-workshop>)

LIMMITS’25, LIMMITS’24, LIMMITS’23

- Organised LIMMITS TTS challenge, part of ICASSP signal processing grand challenges.
- Worked on the challenge proposal, recipes and evaluation.
(<https://github.com/bloodraven66/LIMMITS-24-Coquiai>)
(https://github.com/bloodraven66/ICASSP_LIMMITS23)

MADASR’25, MADASR’23

- Organized Model ADaptation for ASR in Indian languages challenge, part of the ASRU special sessions.
- Worked on the challenge proposal, baseline models and evaluation.
(https://github.com/bloodraven66/RESPIN_ASRU_Challenge_2023)

Interspeech 2024 special session

- Proposed Speech Recognition with Large Pretrained Speech Models for Under-represented Languages as part of Interspeech 2024 special session

ASR for dysarthric speech

- TA in hands-on session for ICASSP 2022 educational short course on ASR for dysarthric speech.
- Along with Tanuka Bhattacharjee (SPIRE Lab, IISc) and Bo-Hao (Borris) Su (NTHU), gave a 2 hr tutorial on training ASR models on dysarthric datasets.
(<https://github.com/Speech4health/hands-on-codes>)

Speechbrain

- Implemented different TTS models for speechbrain library - FastSpeech, FastSpeech2, FastPitch.

MUCS 2021

- Added training recipes in ESPnet for datasets in MUCS Challenge. Also delivered a talk on it at the MUCS workshop, with Prof Shinji Watanabe, & Pengcheng Guo.
(<https://github.com/bloodraven66/writeup/blob/main/TUTORIAL.MD>)

FRAMEWORK / LIBRARY / TOOLKIT

- Python, Bash
- Pytorch
- huggingface transformers, ESPnet, Speechbrain