Vasudha Sathyapriyan
Ph.D. Student

Copenhagen, DK
Indian
+45-52696102
vasudhasathya@gmail.com

A final year industrial Ph.D. student, a MSCA fellow at Demant A/S + Aalborg University. Skilled in statistical signal processing, optimization, and systematic algorithm development, with proficiency in MATLAB.

[LinkedIn](#) | [Google Scholar](#) | [Personal Website](#)

EDUCATION

June 2021-Present

Ph. D. in Electrical and Electronics Engineering (Industrial)
Demant A/S , Smørum, Denmark
Speech enhancement in hearing aid applications using remote microphones.

October 2023-February 2024

Visiting Ph. D. Student
Aalborg University, Aalborg, Denmark
Microphone selection for speech enhancement in hearing aids using remote microphones.

October 2022-February 2023

Visiting Ph. D. Student
Imperial College London, London, United Kingdom
Speech enhancement in hearing aid applications using remote microphones, in the presence of TDOAs of local and remote signals.

September 2018-August 2020

MSc. in Electrical and Electronics Engineering (Cum Laude)
Delft University of Technology, Delft, The Netherlands
Master's Thesis on noise reduction in hearing aid applications, with the preservation of ILDs only in frequencies above 1.5 kHz and ITDs across all frequencies.

June 2013-May 2017

B. E. in Electrical and Electronics Engineering
SSN College of Engineering, Chennai, India

PROFESSIONAL EXPERIENCE

July 2019-November 2019

Graduate Research Intern
Bosch Security and Safety Systems, Eindhoven, The Netherlands
1. Investigated existing beamforming algorithms for microphone arrays in Conference systems.
2. Proposed an algorithm suitable for the proposed requirements.
3. Tested and proposed directions of improvement with the existing methods.

June 2017-May 2018

Software Engineer
Visteon Corporation, Chennai, India
1. Developed software for Automotive Instrument clusters.
2. Implemented source code adhering to coding standards in Embedded Software.

3. Delivered products in an iterative, Agile software Product Development Lifecycle.
4. Coordinated with different domain heads to transform and develop new requirements into design, implementation.

PUBLICATIONS & PATENTS

1. **Sathyapriyan, V.**, Pedersen, M. S., Østergaard, J., Brookes, M., Naylor, P. A., & Jensen, J., 'Speech enhancement using binary estimator selection applied to hearing aids with a remote microphone,' in *2023 International Conference on Frontiers of Signal Processing (ICFSP)*, Oct. 2023, pp. 1-5.

2. Pedersen, M. S., Jensen, J., Rohde, N. H., **Sathyapriyan, V**., inventors; Oticon AS, assignee. Hearing system comprising a hearing aid and an external processing device. United States patent application US 18/187,715., Sep. 2023.

3. **Sathyapriyan, V.**, Pedersen, M. S., Østergaard, J., Brookes, M., Naylor, P. A., & Jensen, J., 'A Linear MMSE Filter Using Delayed Remote Microphone Signals for Speech Enhancement in Hearing Aid Applications,' in *2022 International Workshop on Acoustic Signal Enhancement (IWAENC)*, Sep. 2022, pp. 1-5.

4. **Sathyapriyan, V.**, Çaliş, M., & Hendriks, R. C., "Binaural beam-forming with dominant spatial cue preservation for hearing aids," In 2021 29th European Signal Processing Conference (EUSIPCO), pp. 256-260.

RESEARCH COMMUNICATION

1. **Poster Presentation / Presentation / Research Pitch**
   a. Presented research posters and presentations at multiple international academic conferences, discussing integration of remote microphones with hearing aids amid wireless delays.
   b. Awarded 'Best Presentation' at ICFSP 2023, in Greece.
   c. Secured runner-up position at Danish Sound Day 2023 pitch battle, condensing complex research into a compelling 3-minute presentation for general audience.

2. **Community Outreach**
   a. Co-designed an audio maze emphasizing binaural cues for sound localization, showcased at 'Science is Wonderful' 2023 in Brussels.
   b. Collaboratively developed a virtual audio escape room highlighting the necessity of improved hearing aids with remote microphones.

SOFTWARE SKILLS

MATLAB | C | Python | C++ | HTML

LANGUAGES

English | Kannada | Tamil | Hindi

INTERESTS

Hiking | Swing Dancing | Singing | Puzzle Solving | Krav Maga