

YOU (NEIL) ZHANG

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RESEARCH INTERESTS: APPLIED MACHINE LEARNING IN SPEECH, ACOUSTICS, AND AUDIO SIGNAL PROCESSING

- * **Spatial Audio for Content Delivery:** Source Localization, Head-Related Transfer Function (HRTF) Personalization
- * **Security and Privacy in Speech & Audio:** Speech Anti-Spoofing, Singing Voice Deepfake Detection, Audio Watermarking
- * **Multi-Modal Learning:** Audio-Visual Speech Analysis, Emotional Talking Face Generation, Emotional Text-to-Speech

EDUCATION

University of Rochester (UR) <i>Ph.D., Electrical and Computer Engineering</i>	Aug 2019 – Dec 2025 (Expected) Rochester, NY
University of Rochester (UR) <i>M.S., Electrical and Computer Engineering</i>	Aug 2019 – May 2021 Rochester, NY
University of California, Berkeley (UCB) <i>Bachelor's Reciprocity Student, Electrical Engineering and Computer Science</i>	Jan 2018 – Jan 2019 Berkeley, CA
University of Electronic Science and Technology of China (UESTC) <i>B.Eng., Automation</i>	Sep 2015 – Jun 2019 Chengdu, Sichuan, China

HONORS & AWARDS

IEEE WASPAA Best Student Paper Award (3 awarded out of 95 accepted papers) and Travel Grant (\$462) [link]	Fall 2025
Open Scholarship Award @ OSC Rochester (11 awardees in 2025 among all UR graduate students) [link]	Spring 2025
IEEE Signal Processing Society (SPS) Scholarship (45 international recipients in 2024) [link]	Fall 2024
National Institute of Justice (NIJ) Graduate Research Fellowship (24 national awardees in 2023) [link]	Fall 2023
Top 3% of all papers accepted at ICASSP 2023 (75 awarded out of 2722 accepted papers) [link]	Summer 2023
IEEE ICASSP Rising Stars in Signal Processing (24 international awardees in 2023) [link]	Summer 2023
Signal Processing at the ASA Student Paper Award - Second Place (\$200)	Spring 2023
Travel Grant from AS&E Graduate Student Association @ UR (\$500 each)	Fall 2021 & Summer 2022
Travel Grant from NSF-NRT AR/VR Training Program (\$1000)	Spring 2022
Outstanding Graduate @ UESTC (top 1% in the same year of graduation)	Spring 2019
Renmin Scholarship (top 3% in the same grade and major)	Fall 2016 & Fall 2017 & Fall 2018

ACADEMIC & INDUSTRIAL RESEARCH EXPERIENCE

Dolby Laboratories, Inc. – Multimodal Experiences Lab <i>Sr. Researcher; Supervisor: Dr. Lie Lu</i>	Jun 2025 – Present Atlanta, GA
• Spatial Audio and Multimodal AI	
University of Rochester – Audio Information Research Lab <i>PhD Candidate, Committee: Prof. Zhiyao Duan (Advisor), Prof. Mujdat Cetin, Prof. Jiebo Luo</i>	Aug 2019 – Present Rochester, NY
• Audio Deepfake Detection / Speaker Verification Anti-Spoofing	
* Generalization Ability: Developed one-class learning for better detecting unseen spoofing attacks; Extended the one-class learning idea with speaker attractor multi-center one-class learning to maintain speaker diversity in real speech	
* Channel Robustness: Established that channel effect is a primary reason for cross-dataset performance degradation, and developed training strategies to improve the channel robustness for anti-spoofing	
* Joint Optimization: Developed a probabilistic fusion framework for spoofing aware speaker verification	
* Singing Voice Deepfake Detection (SVDD): Proposed novel SVDD task and identified challenges with the collected SingFake dataset; Organized SVDD 2024 Challenge at IEEE SLT2024 and MIREX@ISMIR2024	

- * Algorithm Deployment: Impact real-world by working with IngenID to deploy the developed anti-spoofing algorithms
- **Personalized Head-Related Transfer Function (HRTF) Modeling for Spatial Audio**
 - * Established learning **neural field representations** to unify measured HRTFs databases for upsampling and personalization
 - * Developed a novel **position-dependent normalization strategy** that effectively mitigates the influence of cross-database differences to improve the learned representation further
 - * Built a deep learning system to predict the **spherical harmonic coefficients** from anthropometric measurements and scanned head geometry of subjects for HRTF personalization
- **Audio-Visual Rendering and Analysis**
 - * Emotional Talking Face Generation: Implemented and evaluated a baseline method and took charge of the subjective evaluation section, including the Amazon Mechanical Turk (AMT) setup, survey design, and data analysis
 - * Audio-Visual Speaker Diarization: Alleviated audio-visual **synchronization** and **off-screen speakers** problem
 - * Audio-Visual Deepfake Detection: Developed a multi-stream fusion framework complemented with **one-class learning** to improve the generalization ability for audio-visual deepfake detection

Meta – Reality Labs Research Audio **May 2024 – Sep 2024**
Redmond, WA
Research Intern, Mentor: Dr. Ishwarya Ananthabhotla

- **Perceptual Head-Related Transfer Function (HRTF) Representation Learning**
 - * Improved HRTF representation learning by incorporating **perceptually-informed loss functions** and analyzed perceptual features in machine learning models through alignment with **auditory model observers**.

Microsoft – Applied Sciences **May 2023 – Aug 2023**
Redmond, WA
Research Intern, Mentor: Dr. Kazuhito Koishida

- **Audio-Visual Segmentation by Prompting Segment Anything Model**
 - * Proposed a **prompting framework** to augment a vision foundation model (Segment Anything Model, SAM) with auditory understanding capabilities, enabling it to **simultaneously localize and segment** sounding sources in video frames.

Tencent America – Tencent AI Lab **May 2022 – Aug 2022**
Bellevue, WA
Research Intern, Mentor: Dr. Shi-Xiong (Austin) Zhang

- **Multi-Channel Audio-Visual Speaker Diarization with Spatial Features**
 - * Proposed a probabilistic framework to incorporate the spatial information from multi-channel audio, speaker characteristics, and visual information to perform **speaker diarization**.

Bytedance / Tiktok – Speech, Audio & Music Intelligence **May 2021 – Aug 2021**
Mountain View, CA
Research Intern, Mentor: Dr. Ming Tu

- **Audio-Visual Active Speaker Detection with Noisy Student Training**
 - * Implemented state-of-the-art active speaker detection methods and adapted them to real-world data on short-video platforms with a **semi-supervised learning** method, noisy student training.

Tencent – Tencent Media Lab **Jun 2019 – Aug 2019**
Shenzhen, Guangdong, China
Research Intern, Mentor: Dr. Yannan Wang

- **Perceptual Loss Design for Mask-based Speech Enhancement**
 - * Improved the perceptual quality of the enhanced speech using **multi-task learning** with the implementation of several perception-inspired losses using **uncertainty**.

GRANT WRITING EXPERIENCES

Attributable Watermarking and Deepfake Detection for Responsible Audiobox (PI: Zhiyao Duan) **Dec 2024 – Nov 2025**
\$50,000
Meta Audiobox Responsible Generation Grant

Audio Deepfake Detection for Forensics and Security (Awarded Fellow: You Zhang) **Jan 2024 – Apr 2025**
\$64,003
National Institute of Justice (NIJ) Graduate Research Fellowship

Safeguarding Generative AI by Audio-Visual Deepfake Detection (PI: Zhiyao Duan) **Jul 2024 – Jun 2025**
10,000 GPU hours
National AI Research Resource (NAIRR) Pilot

Toward Noise Resilient Voice Spoofing Countermeasures (PI: Zhiyao Duan) **Jan 2024 – Dec 2024**
\$60,000
New York State Center of Excellence in Data Science

Training Audio-Visual Foundation Models to Capture Fine-Grained Dependencies (PI: <u>Zhiyao Duan</u>) <i>Microsoft Accelerate Foundation Models Research (AFMR) initiative</i>	Nov 2023 – Jun 2024 20,000 Azure credits
Developing and Deploying Spoofing Aware Speaker Verification Systems (PI: <u>Zhiyao Duan</u>) <i>New York State Center of Excellence in Data Science</i>	Jan 2023 – Dec 2023 \$59,989
Personalized Immersive Spatial Audio with Neural Field (PIs: <u>Zhiyao Duan</u> and <u>Mark Bocko</u>) <i>University of Rochester Goergen Institute for Data Science seed funding program</i>	Nov 2022 – Oct 2023 \$20,000

MEDIA COVERAGE

Why AI-generated audio is so hard to detect [link]	NBC News
News10NBC Investigates: Here's what happened when we did a deep fake on Berkeley Brean's voice [link]	WHEC-TV Rochester
Audio deepfake detective developing new sleuthing techniques [link]	UR News Center

INVITED TALKS

[5] Generalizing Audio Deepfake Detection <i>Carnegie Mellon University (CMU) Speech Lunch, USA – Online</i>	Nov 2024
[4] Audio Deepfake Detection [video] <i>Generative AI Spring School & Global AI Bootcamp, Ukraine – Online</i>	Mar 2024
[3] Improving Generalization Ability for Audio Deepfake Detection <i>Learning And Mining from Data (LAMDA) Lab, Nanjing University, China</i>	Dec 2023
[2] Generalizing Voice Presentation Attack Detection to Unseen Synthetic Attacks <i>ISCA Special Interest Group (SIG) - Security and Privacy in Speech Communication (SPSC) webinar – Online</i>	Feb 2023
[1] One-class Learning Towards Synthetic Voice Spoofing Detection <i>National Institute of Informatics (NII) Yamagishi Lab, Japan – Online</i>	Jan 2021

TUTORIALS

[3] Machine Learning for Acoustics (Co-presented with <u>Ryan McCarthy</u> , <u>Samuel A. Verburg</u> , <u>Peter Gerstoft</u>) <i>Acoustical Society of America (ASA) 187th Meeting, Online</i>	Nov 2024
[2] Multimedia Deepfake Detection (Co-presented with <u>Menglu Li</u> , <u>Luchuan Song</u> , Co-organized with <u>Xiao-Ping Zhang</u> , <u>Chenliang Xu</u> , <u>Zhiyao Duan</u>) <i>IEEE International Conference on Advanced Visual and Signal-Based Systems (AVSS), Taiwan – Online</i> <i>IEEE International Conference on Multimedia and Expo (ICME), Niagara Falls, Canada</i>	August 2025 July 2024
[1] Machine Learning for Personalized Head-Related Transfer Functions (HRTFs) Modeling in Gaming [slides] <i>AES 6th International Conference on Audio for Games, Tokyo, Japan</i>	Apr 2024

TEACHING

Teaching Assistant

• ECE 411	Selected Topics in Augmented and Virtual Reality	Spring 2024
• ECE 277 / 477	Computer Audition	Fall 2020 & Fall 2023
• ECE 208 / 408	The Art of Machine Learning	Spring 2022 & Spring 2023
• ECE 440	Introduction to Random Processes	Fall 2022
• ECE 272 / 472	Audio Signal Processing	Spring 2020 & Spring 2021
• ECE 216	Microprocessor & Data Conversion	Fall 2019

Guest Lectures

• ECE 277 / 477	Room Acoustics and Spatial Audio	Fall 2024
• ECE 411	Audio Deepfake Detection and Watermarking	Spring 2024
• ECE 277 / 477	Python Programming for Audio	Fall 2023
• ECE 277 / 477	Speech Technology	Fall 2023

• ECE 277 / 477	Speech Anti-Spoofing	Fall 2023
• ECE 208 / 408	Support Vector Machines (SVM)	Spring 2023
• ECE 208 / 408	Neural Network Training	Spring 2023
• ECE 208 / 408	Generative Adversarial Networks (GAN)	Spring 2022
• ECE 277 / 477	Introduction to Speech Technology	Fall 2020

Students Mentored

• Ye In (Brynn) Lee	DS master @ UR	Audio Deepfake Detection
• Kyungbok Lee	CS undergraduate @ UR	Audio-Visual Analysis
• Yanyu Zhou	EE undergraduate @ UESTC	Audio-Visual Speaker Diarization
• Yutong Wen	AME undergraduate @ UR	HRTF Personalization with Neural Fields
• Enting Zhou	CS undergraduate @ UR	Speech Emotion Representation Learning
• Yongyi Zang	AME undergraduate @ UR	Audio Deepfake Detection
• Siwen (Sivan) Ding	DS master @ Columbia University	Audio Deepfake Detection
• Abudukelimu Wuerkaixi	PhD student @ Tsinghua University	Audio-Visual Speaker Diarization
• Xinhui Chen	CS master @ UR	Audio Deepfake Detection

PUBLICATIONS (* Equal contribution (EC), ‡ Student mentored)

Google Scholar: [nYtHcRAAAAJ](#)

Under Review / Preprint

[U3] Xuanjun Chen, Chia-Yu Hu, I-Ming Lin, Yi-Cheng Lin, I-Hsiang Chiu, **You Zhang**, Sung-Feng Huang, Yi-Hsuan Yang, Haibin Wu, Hung-yi Lee, and Jyh-Shing Roger Jang. “How Does Instrumental Music Help SingFake Detection?”, *arXiv preprint arXiv:2509.14675*, 2025. [[arXiv](#)]

[U2] Kun Zhou, **You Zhang**, Shengkui Zhao, Hao Wang, Zexu Pan, Dianwen Ng, Chong Zhang, Chongjia Ni, Yukun Ma, Trung Hieu Nguyen, Jia Qi Yip, and Bin Ma. “Emotional Dimension Control in Language Model-Based Text-to-Speech: Spanning a Broad Spectrum of Human Emotions”, *arXiv preprint 2409.16681*, 2025. [[arXiv](#)] [[demo](#)]

[U1] Yuxiang Wang, **You Zhang**, Zhiyao Duan, and Mark Bocko. “Predicting Global Head-Related Transfer Functions From Scanned Head Geometry Using Deep Learning and Compact Representations”, *arXiv preprint 2207.14352*, 2025. [[arXiv](#)] [[code](#)]

Book Chapters

[B1] **You Zhang**, Fei Jiang, Ge Zhu, Xinhui Chen[‡], and Zhiyao Duan. “Generalizing Voice Presentation Attack Detection to Unseen Synthetic Attacks and Channel Variation”, *Handbook of Biometric Anti-spoofing (3rd ed.)*, Springer, 2023. [[DOI](#)] [[code](#)]

Journals

[J4] Ryan A McCarthy, **You Zhang**, Samuel A Verburg, William F Jenkins, and Peter Gerstoft. “Machine Learning in Acoustics: A Review and Open-Source Repository”, *npj Acoustics*, vol. 1, pp. 18, 2025. [[DOI](#)] [[arXiv](#)] [[code](#)]

[J3] Xin Wang, Héctor Delgado, Hemlata Tak, Jee-weon Jung, Hye-jin Shim, Massimiliano Todisco, Ivan Kukanov, Xuechen Liu, Md Sahidullah, Tomi Kinnunen, Nicholas Evans, Kong Aik Lee, Junichi Yamagishi, Myeonghun Jeong, Ge Zhu, Yongyi Zang, **You Zhang**, Soumi Maiti, Florian Lux, Nicolas Müller, Wangyou Zhang, Chengzhe Sun, Shuwei Hou, Siwei Lyu, Sébastien Le Maguer, Cheng Gong, Hanjie Guo, Liping Chen, and Vishwanath Singh. “ASVspoof 5: Design, collection and validation of resources for spoofing, deepfake, and adversarial attack detection using crowdsourced speech”, *Computer Speech & Language*, 2025. [[DOI](#)] [[dataset](#)]

[J2] Sefik Emre Eskimez, **You Zhang**, and Zhiyao Duan. “Speech Driven Talking Face Generation from a Single Image and an Emotion Condition”, *IEEE Transactions on Multimedia*, vol. 24, pp. 3480-3490, 2021. [[DOI](#)] [[code](#)] [[project webpage](#)]

[J1] **You Zhang**, Fei Jiang, and Zhiyao Duan. “One-class Learning Towards Synthetic Voice Spoofing Detection”, *IEEE Signal Processing Letters*, vol. 28, pp. 937-941, 2021. [[DOI](#)] [[code](#)] [[video](#)] [[project webpage](#)]

Peer-Reviewed Conferences and Workshops

[P19] **You Zhang**, Andrew Franci, Ruohan Gao, Paul Calamia, Zhiyao Duan, and Ishwarya Ananthabhotla. “Towards Perception-Informed Latent HRTF Representations”, *Proc. IEEE Workshop on Applications of Signal Processing to Audio and Acoustics (WASPAA)*, 2025. [[arXiv](#)] [[video](#)] [[slides](#)] [[poster](#)] (**I won the Best Student Paper Award and received a WASPAA 2025 travel grant.**)

[P18] **You Zhang***^{*}, Baotong Tian* (EC), Lin Zhang, and Zhiyao Duan. “PartialEdit: Identifying Partial Deepfakes in the Era of Neural Speech Editing”, *Proc. Interspeech*, 2025. [[DOI](#)] [[arXiv](#)] [[dataset](#)] [[demo page](#)]

- [P17] Kyungbok Lee[‡], **You Zhang**, and Zhiyao Duan. “Audio Visual Segmentation Through Text Embeddings”, *Proc. IEEE International Conference on Image Processing (ICIP)*, 2025. [[DOI](#)] [[arXiv](#)] [[code](#)]
- [P16] Jiatong Shi, Hyejin Shim, Jinchuan Tian, Siddhant Arora, Haibin Wu, Darius Petermann, Jia Qi Yip, **You Zhang**, Yuxun Tang, Wangyou Zhang, Dareen Alharthi, Yichen Huang, Koichi Saito, Jionghao Han, Yiwen Zhao, Chris Donahue, and Shinji Watanabe. “VERSA: A Versatile Evaluation Toolkit for Speech, Audio, and Music”, *Annual Conference of the North American Chapter of the Association for Computational Linguistics (NAACL) – System Demonstration Track*, 2025. [[DOI](#)] [[arXiv](#)] [[code](#)]
- [P15] **You Zhang**, Yongyi Zang, Jiatong Shi, Ryuichi Yamamoto, Tomoki Toda, and Zhiyao Duan. “SVDD 2024: The Inaugural Singing Voice Deepfake Detection Challenge”, *Proc. IEEE Spoken Language Technology Workshop (SLT)*, 2024. [[DOI](#)] [[arXiv](#)] [[code](#)]
- [P14] Kyungbok Lee[‡], **You Zhang**, and Zhiyao Duan, “A Multi-Stream Fusion Approach with One-Class Learning for Audio-Visual Deepfake Detection”, *Proc. IEEE 26th International Workshop on Multimedia Signal Processing (MMSP)*, 2024. [[DOI](#)] [[code](#)] (**Kyungbok received MMSP 2024 travel grant and UR Undergraduate Research Presentation Award for this paper.**)
- [P13] Yongyi Zang[‡], Jiatong Shi, **You Zhang**, Ryuichi Yamamoto, Jionghao Han, Yuxun Tang, Shengyuan Xu, Wenxiao Zhao, Jing Guo, Tomoki Toda, and Zhiyao Duan. “CtrSVDD: A Benchmark Dataset and Baseline Analysis for Controlled Singing Voice Deepfake Detection”, *Proc. Interspeech*, 2024. [[DOI](#)] [[code](#)] [[dataset](#)]
- [P12] Yongyi Zang^{*‡}, **You Zhang*** (EC), Mojtaba Heydari, and Zhiyao Duan. “SingFake: Singing Voice Deepfake Detection”, in *Proc. IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, 2024. [[DOI](#)] [[code](#)] [[project webpage](#)]
- [P11] Enting Zhou[‡], **You Zhang**, and Zhiyao Duan. “Learning Arousal-Valence Representation from Categorical Emotion Labels of Speech”, in *Proc. IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, 2024. [[DOI](#)] [[code](#)]
- [P10] Yutong Wen[‡], **You Zhang**, and Zhiyao Duan. “Mitigating Cross-Database Differences for Learning Unified HRTF Representation”, in *Proc. IEEE Workshop on Applications of Signal Processing to Audio and Acoustics (WASPAA)*, 2023. [[DOI](#)] [[code](#)] [[video](#)] (**Yutong received WASPAA 2023 travel grant and UR Undergraduate Research Presentation Award for this paper.**)
- [P9] Yongyi Zang[‡], **You Zhang**, and Zhiyao Duan. “Phase Perturbation Improves Channel Robustness for Speech Spoofing Countermeasures”, in *Proc. Interspeech*, pp. 3162-3166, 2023. [[DOI](#)] [[code](#)]
- [P8] Siwen Ding[‡], **You Zhang**, and Zhiyao Duan. “SAMO: Speaker Attractor Multi-Center One-Class Learning for Voice Anti-Spoofing”, in *Proc. IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, 2023. [[DOI](#)][[code](#)][[video](#)]
- [P7] **You Zhang**, Yuxiang Wang, and Zhiyao Duan. “HRTF Field: Unifying Measured HRTF Magnitude Representation with Neural Fields”, in *Proc. IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, 2023. [[DOI](#)] [[code](#)] [[video](#)] (**Recognized as one of the top 3% of all papers accepted at ICASSP 2023**)
- [P6] Abudukelimu Wuerkaixi[‡], Kunda Yan, **You Zhang**, Zhiyao Duan, and Changshui Zhang. “DyViSE: Dynamic Vision-Guided Speaker Embedding for Audio-Visual Speaker Diarization”, in *Proc. IEEE 24th International Workshop on Multimedia Signal Processing (MMSP)*, pp. 1-6, 2022. [[DOI](#)] [[code](#)]
- [P5] Abudukelimu Wuerkaixi[‡], **You Zhang**, Zhiyao Duan, and Changshui Zhang. “Rethinking Audio-visual Synchronization for Active Speaker Detection”, in *Proc. IEEE 32nd International Workshop on Machine Learning for Signal Processing (MLSP)*, 2022. [[DOI](#)][[code](#)]
- [P4] **You Zhang**, Ge Zhu, and Zhiyao Duan. “A Probabilistic Fusion Framework for Spoofing Aware Speaker Verification”, in *Proc. The Speaker and Language Recognition Workshop (Odyssey)*, pp. 77-84, 2022. [[DOI](#)] [[code](#)]
- [P3] Xinhui Chen^{*‡}, **You Zhang*** (EC), Ge Zhu*, and Zhiyao Duan. “UR Channel-Robust Synthetic Speech Detection System for ASVspoof 2021”, in *Proc. ASVspoof 2021 Workshop*, pp. 75-82, 2021. [[DOI](#)] [[code](#)] [[video](#)]
- [P2] **You Zhang**, Ge Zhu, Fei Jiang, and Zhiyao Duan. “An Empirical Study on Channel Effects for Synthetic Voice Spoofing Countermeasure Systems”, in *Proc. Interspeech*, pp. 4309-4313, 2021. [[DOI](#)] [[code](#)] [[dataset](#)] [[video](#)]
- [P1] Yuxiang Wang, **You Zhang**, Zhiyao Duan, and Mark Bocko. “Global HRTF Personalization Using Anthropometric Measures”, in *Proc. Audio Engineering Society (AES) 150th Convention*, 2021. [[DOI](#)] [[code](#)] [[video](#)]

Technical Reports

- [T2] **You Zhang**, Yongyi Zang, Jiatong Shi, Ryuichi Yamamoto, Jionghao Han, Yuxun Tang, Tomoki Toda, and Zhiyao Duan. “SVDD Challenge 2024: A Singing Voice Deepfake Detection Challenge Evaluation Plan”, 2024. [[link](#)] [[challenge webpage](#)]
- [T1] **You Zhang**, Ge Zhu, and Zhiyao Duan. “UR Spoofing Aware Speaker Verification System for the SASV Challenge”, 2022. [[link](#)]

Conference Abstracts

- [C3] **You Zhang**, Andrew Franci, Ruohan Gao, Paul Calamia, Zhiyao Duan, and Ishwarya Ananthabhotla. “Perception-Informed Alignment of Learning Personalized Head-Related Transfer Function Latent Representations”, in *Acoustical Society of America (ASA) 189th Meeting—joint with the Acoustical Society of Japan*, 2025.

[C3] **You Zhang**, Yuxiang Wang, Mark Bocko, and Zhiyao Duan. “Grid-Agnostic Personalized Head-Related Transfer Function Modeling with Neural Fields”, in *Acoustical Society of America (ASA) 184th Meeting*, 2023. [[DOI](#)] (**Recognized by Signal Processing at the ASA Student Paper Award - Second Place**)

[C2] Samantha E. Lettenberger, Maryam Zafar, Julia M. Soto, **You Zhang**, Ge Zhu, Aaron J. Masino, Grace Nkrumah, Emma Waddell, Kelsey Spear, Abigail Arky, Rajbir Toor, Emily Hartman, Jacob Epifano, Rich Christie, Zhiyao Duan, and Ray Dorsey. “Words Spoken Daily: A Novel Measure of Cognition”, in *International Congress of Parkinson’s Disease and Movement Disorders (MDS)*, 2023. [[DOI](#)]

[C1] Yuxiang Wang, **You Zhang**, Zhiyao Duan, and Mark Bocko. “Employing Deep Learning Method to Predict Global Head-Related Transfer Functions from Scanned Head Geometry”, in *Acoustical Society of America (ASA) 181st Meeting*, 2021. [[DOI](#)]

PROFESSIONAL SERVICES

Leadership

- Co-organized SVDD Task in MIREX Challenge @ ISMIR 2024 & ISMIR 2025 [[link](#)] Fall 2024
- Co-organized SVDD Challenge and Special Session @ IEEE SLT 2024 [[link](#)] Summer 2024
- IEEE ICASSP 2024 Student Volunteer Spring 2024
- Executive Committee Member for AR/VR PhD training program Fall 2023 – Spring 2024
- Western New York AR/VR Mini-Conference Co-chair [[link](#)] Spring 2022 & Spring 2023
- Diversity, Equity, and Inclusion (DEI) Committee Member for ECE Department Fall 2022 – Spring 2023
- IEEEExtreme 16.0 Ambassador [[link](#)] Fall 2022

Reviewer

- **Journals:**
 - * IEEE Transactions on Audio, Speech, and Language Processing (TASLP) 2023-2025
 - * IEEE Journal of Selected Topics in Signal Processing (JSTSP) 2024
 - * IEEE Transactions on Multimedia (TMM) 2025
 - * IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI) 2024
 - * IEEE Signal Processing Letters 2024-2025
 - * IEEE Open Journal of Signal Processing (OJSP) 2022-2025
 - * ACM Transactions on Multimedia Computing, Communications, and Applications (TOMM) 2024-2025
 - * EURASIP Journal on Audio, Speech, and Music Processing 2024
 - * EURASIP Journal on Advances in Signal Processing 2023
 - * Computer Speech & Language 2024
 - * Transactions of the International Society for Music Information Retrieval (TISMIR) 2022-2023
 - * ACM Computing Surveys 2024
 - * Neural Networks 2023-2025
 - * IEEE Access 2023-2025
 - * IEEE Transactions on Computational Imaging (TCI) 2021

- **Peer-Reviewed Conferences and Workshops:**
 - * IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP) 2024-2025
 - * ISCA Interspeech 2023-2025
 - * IEEE Workshop on Applications of Signal Processing to Audio and Acoustics (WASPAA) 2025
 - * IEEE Spoken Language Technology Workshop (**Meta-reviewer for SVDD special session**) 2024
 - * IEEE Workshop on Automatic Speech Recognition and Understanding (ASRU) 2025
 - * ACM Multimedia 2025
 - * Audio Engineering Society (AES) 152nd - 158th Convention 2022-2025
 - * International Joint Conference on Neural Networks (IJCNN) 2025
 - * ISCA Automatic Speaker Verification and Spoofing Countermeasures (ASVspoof) Workshop 2024
 - * ISCA Symposium on Security and Privacy in Speech Communication 2024-2025
 - * CVPR Multimodal Learning and Applications Workshop (MULA) 2023-2025
 - * IJCAI Workshop on Deepfake Audio Detection and Analysis (DADA) 2023

Membership

- Acoustical Society of America (ASA) Student Member 2023-2025
- Association for Computing Machinery (ACM) Student Member 2022-2025
- IEEE Signal Processing Society (SPS) Student Member 2021-2025
- IEEE Graduate Student Member 2021-2025
- Audio Engineering Society (AES) Student Member 2019-2025

SKILLS

Programming: Python (PyTorch, Numpy, Pandas), MATLAB, Java, R, VHDL, C, L^AT_EX, Markdown

Platforms: Linux, Git, Jupyter Notebook, Slurm, Visual Studio Code, PyCharm, IntelliJ, Xilinx Vivado, Multisim

Languages: English (Fluent), Mandarin Chinese (Native)