

# 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

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## EDUCATION

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

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## HONORS & AWARDS

<b>IEEE WASPAA Best Student Paper Award</b> (3 awarded out of 95 accepted papers) and Travel Grant (\$462) <a href="#">[link]</a>	Fall 2025
Open Scholarship Award @ OSC Rochester (11 awardees in 2025 among all UR graduate students) <a href="#">[link]</a>	Spring 2025
<b>IEEE Signal Processing Society (SPS) Scholarship</b> (45 international recipients in 2024) <a href="#">[link]</a>	Fall 2024
<b>National Institute of Justice (NIJ) Graduate Research Fellowship</b> (24 national awardees in 2023) <a href="#">[link]</a>	Fall 2023
Top 3% of all papers accepted at ICASSP 2023 (75 awarded out of 2722 accepted papers) <a href="#">[link]</a>	Summer 2023
<b>IEEE ICASSP Rising Stars in Signal Processing</b> (24 international awardees in 2023) <a href="#">[link]</a>	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

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## ACADEMIC & INDUSTRIAL RESEARCH EXPERIENCE

<b>Dolby Laboratories, Inc. – Multimodal Experiences Lab</b> <i>Sr. Researcher, Supervisor: Dr. Lie Lu</i> <ul style="list-style-type: none"><li>• <b>Spatial Audio and Multimodal AI</b></li></ul>	<b>Jun 2025 – Present</b> <i>Atlanta, GA</i>
<b>University of Rochester – Audio Information Research Lab</b> <i>PhD Candidate, Committee: Prof. Zhiyao Duan (Advisor), Prof. Mujdat Cetin, Prof. Jiebo Luo</i> <ul style="list-style-type: none"><li>• <b>Audio Deepfake Detection / Speaker Verification Anti-Spoofing</b><ul style="list-style-type: none"><li>* Generalization Ability: Developed <b>one-class learning</b> 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</li><li>* Channel Robustness: Established that <b>channel effect</b> is a primary reason for cross-dataset performance degradation, and developed training strategies to improve the channel robustness for anti-spoofing</li><li>* Joint Optimization: Developed a <b>probabilistic fusion framework</b> for spoofing aware speaker verification</li><li>* 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</li></ul></li></ul>	<b>Aug 2019 – Present</b> <i>Rochester, NY</i>

\* 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**

Research Intern, Mentor: Dr. Ishwarya Ananthabhotla

Redmond, WA

• **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**

Research Intern, Mentor: Dr. Kazuhito Koishida

Redmond, WA

• **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**

Research Intern, Mentor: Dr. Shi-Xiong (Austin) Zhang

Bellevue, WA

• **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**

Research Intern, Mentor: Dr. Ming Tu

Mountain View, CA

• **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**

Research Intern, Mentor: Dr. Yannan Wang

Shenzhen, Guangdong, China

• **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**

Meta Audiobox Responsible Generation Grant

\$50,000

**Audio Deepfake Detection for Forensics and Security** (Awarded Fellow: You Zhang)

**Jan 2024 – Apr 2025**

National Institute of Justice (NIJ) Graduate Research Fellowship

\$64,003

**Safeguarding Generative AI by Audio-Visual Deepfake Detection** (PI: Zhiyao Duan)

**Jul 2024 – Jun 2025**

National AI Research Resource (NAIRR) Pilot

10,000 GPU hours

**Toward Noise Resilient Voice Spoofing Countermeasures** (PI: Zhiyao Duan)

**Jan 2024 – Dec 2024**

New York State Center of Excellence in Data Science

\$60,000

**Training Audio-Visual Foundation Models to Capture Fine-Grained Dependencies** (PI: [Zhiyao Duan](#)) **Nov 2023 – Jun 2024**  
*Microsoft Accelerate Foundation Models Research (AFMR) initiative* 20,000 Azure credits

**Developing and Deploying Spoofing Aware Speaker Verification Systems** (PI: [Zhiyao Duan](#)) **Jan 2023 – Dec 2023**  
*New York State Center of Excellence in Data Science* \$59,989

**Personalized Immersive Spatial Audio with Neural Field** (PIs: [Zhiyao Duan](#) and [Mark Bocko](#)) **Nov 2022 – Oct 2023**  
*University of Rochester Goergen Institute for Data Science seed funding program* \$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  
*Carnegie Mellon University (CMU) Speech Lunch, USA – Online* Nov 2024
- [4] Audio Deepfake Detection [\[video\]](#)  
*Generative AI Spring School & Global AI Bootcamp, Ukraine – Online* Mar 2024
- [3] Improving Generalization Ability for Audio Deepfake Detection  
*Learning And Mining from DatA (LAMDA) Lab, Nanjing University, China* Dec 2023
- [2] Generalizing Voice Presentation Attack Detection to Unseen Synthetic Attacks  
*ISCA Special Interest Group (SIG) - Security and Privacy in Speech Communication (SPSC) webinar – Online* Feb 2023
- [1] One-class Learning Towards Synthetic Voice Spoofing Detection  
*National Institute of Informatics (NII) Yamagishi Lab, Japan – Online* Jan 2021

## TUTORIALS

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

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**Programming:** Python (PyTorch, Numpy, Pandas), MATLAB, Java, R, VHDL, C,  $\LaTeX$ , Markdown

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

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