SIDDHANT ARORA

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Aug. 2022 - Current

Aug. 2020 - Aug. 2022

Adviser: Dr. Shinji Watanabe

CGPA: 4.06/4.33

CGPA: 4.13/4.33

RESEARCH INTERESTS

Spoken Dialogue Systems, Spoken Language Understanding, Speech Processing

EDUCATION

Carnegie Mellon University, Pittsburgh

Ph.D. Language Technology (Funded with Fellowship) School of Computer Science.

Carnegie Mellon University, Pittsburgh

Master of Science, Language Technology (Funded with Fellowship) School of Computer Science.

Indian Institute of Technology, Delhi

Jul. 2015 - Jul. 2020 B.Tech and M. Tech (Dual Degree) B.Tech CGPA: 9.408/10, M.Tech CGPA: 9.484/10 Department of Computer Science and Engineering. Department Rank: 1

ACADEMIC ACHIEVEMENTS

- IEEE Ganesh N. Ramaswamy Memorial Student Grant for being one of the top papers at ICASSP 2023
- First Place in Quality Track, First Place in Domain Adaptation Track and Second Place in On-Device Track at ICASSP 2023 STOP Challenge.
- Top 10% of MLT class in CMU in first 2 semesters
- CMU Graduate Research Fellowship
- Institute Silver Medal for securing Department Rank 1 in Dual Degree Program of Computer Science and Engineering at IIT Delhi
- Merit certificate at IIT Delhi in 7 out of 10 semesters given to only top 7% students
- \bullet All India Rank 11 (amongst 1,200,000 candidates) in JEE Mains 2015 and 289 (amongst 140,000 candidates) in IIT-JEE Advanced 2015
- KVPY Scholar fellowship (300 selected amongst 600,000 candidates) in January 2014

PUBLICATIONS(CONFERENCE AND JOURNAL)

- 1. Chain-of-Thought Training for Open E2E Spoken Dialogue Systems: Siddhant Arora, Yifan Peng, Jinchuan Tian, Hayato Futami, Jee-weon Jung, Jiatong Shi, Yosuke Kashiwagi, Emiru Tsunoo, Shinji Watanabe. INTERSPEECH 2025 [URL]
- 2. ESPnet-SDS: Unified Toolkit and Demo for Spoken Dialogue Systems: Siddhant Arora, Yifan Peng, Jiatong Shi, Jinchuan Tian, William Chen, Shikhar Bharadwaj, Hayato Futami, Yosuke Kashiwagi, Emiru Tsunoo, Shuichiro Shimizu, Vaibhay Srivastay, Shinji Watanabe. NAACL 2025 Conference Demo Track [URL]

- 3. Talking Turns: Benchmarking Audio Foundation Models on Turn-Taking Dynamics: Siddhant Arora, Zhiyun Lu, Chung-Cheng Chiu, Ruoming Pang, Shinji Watanabe. ICLR 2025 Conference [URL]
- 4. OpusLM: A Family of Open Unified Speech Language Models: Jinchuan Tian, William Chen, Yifan Peng, Jiatong Shi, Siddhant Arora, Shikhar Bharadwaj, Maekaku Takashi, Yusuke Shinohara, Keita Goto, Xiang Yue, Chao-Han Huck Yang, Shinji Watanabe. INTERSPEECH 2025.
- 5. Scalable Spontaneous Speech Dataset (SSSD): Crowdsourcing Data Collection to Promote Dialogue Research: Zaid Sheikh, Shuichiro Shimizu, Siddhant Arora, Jiatong Shi, Samuele Cornell, Xinjian Li, Shinji Watanabe. INTERSPEECH 2025.
- 6. Scheduled Interleaved Speech-Text Training for Speech-to-Speech Translation with LLMs: Hayato Futami, Emiru Tsunoo, Yosuke Kashiwagi, Yuki Ito, Hassan Shahmohammadi, Siddhant Arora, Shinji Watanabe. INTERSPEECH 2025. [URL]
- 7. ESPnet-SpeechLM: An Open Speech Language Model Toolkit: Jinchuan Tian, Jiatong Shi, William Chen, Siddhant Arora, Yoshiki Masuyama, Takashi Maekaku, Yihan Wu, Junyi Peng, Shikhar Bharadwaj, Yiwen Zhao, Samuele Cornell, Yifan Peng, Xiang Yue, Chao-Han Huck Yang, Graham Neubig, Shinji Watanabe. NAACL 2025 Conference Demo Track [URL]
- 8. VERSA: A Versatile Evaluation Toolkit for Speech, Audio, and Music: Jiatong Shi, Hyejin Shim, Jinchuan Tian, Siddhant Arora, Haibin Wu, Darius Petermann, Jia Qi Yip, You Zhang, Yuxun Tang, Wangyou Zhang, Dareen Safar Alharthi, Yichen Huang, Koichi Saito, Jionghao Han, Yiwen Zhao, Chris Donahue, Shinji Watanabe. NAACL 2025 Conference Demo Track [URL]
- 9. Context-aware Dynamic Pruning for Speech Foundation Models: Masao Someki, Yifan Peng, <u>Siddhant Arora</u>, Markus Mller, Athanasios Mouchtaris, Grant Strimel, Jing Liu, Shinji Watanabe. ICLR 2025 Conference [URL]
- 10. Dynamic-SUPERB Phase-2: A Collaboratively Expanding Benchmark for Measuring the Capabilities of Spoken Language Models with 180 Tasks: Chien-yu Huang et al. ICLR 2025 Conference [URL]
- 11. UniverSLU: Universal Spoken Language Understanding for Diverse Classification and Sequence Generation Tasks with a Single Network: Siddhant Arora, Hayato Futami, Jeeweon Jung, Yifan Peng, Roshan Sharma, Yosuke Kashiwagi, Emiru Tsunoo, Shinji Watanabe. NAACL 2024 Conference [URL]
- 12. On the Evaluation of Speech Foundation Models for Spoken Language Understanding: Siddhant Arora, Ankita Pasad, Chung-Ming Chien, Jionghao Han, Roshan Sharma, Jee-weon Jung, Hira Dhamyal, William Chen, Suwon Shon, Hung-yi Lee, Karen Livescu, Shinji Watanabe. ACL 2024 Findings [URL]
- 13. Hypothesis Clustering and Merging: Novel MultiTalker Speech Recognition with Speaker Tokens: Yosuke Kashiwagi, Hayato Futami, Emiru Tsunoo, Siddhant Arora, Shinji Watanabe. ICASSP 2025 [URL]
- 14. TMT: Tri-Modal Translation between Speech, Image, and Text by Processing Different Modalities as Different Languages: Minsu Kim, Jee-weon Jung, Hyeongseop Rha, Soumi Maiti, Siddhant Arora, Xuankai Chang, Shinji Watanabe, Yong Man Ro. IEEE Transactions on Multimedia 2025 [URL]
- 15. **ESPnet-EZ: Python-only ESPnet for Easy Fine-tuning and Integration**: Masao Someki, Kwanghee Choi, <u>Siddhant Arora</u>, William Chen, Samuele Cornell, Jionghao Han, Yifan Peng, Jiatong Shi, Vaibhav Srivastav, Shinji Watanabe. SLT 2024 Conference [URL]

- 16. **Decoder-only Architecture for Streaming End-to-end Speech Recognition**: Emiru Tsunoo, Hayato Futami, Yosuke Kashiwagi, <u>Siddhant Arora</u>, Shinji Watanabe. INTERSPEECH 2024 Conference [URL]
- 17. Finding Task-specific Subnetworks in Multi-task Spoken Language Understanding Model: Hayato Futami, <u>Siddhant Arora</u>, Yosuke Kashiwagi, Emiru Tsunoo, Shinji Watanabe. INTERSPEECH 2024 Conference [URL]
- 18. Rapid Language Adaptation for Multilingual E2E Speech Recognition Using Encoder Prompting: Yosuke Kashiwagi, Hayato Futami, Emiru Tsunoo, Siddhant Arora, Shinji Watanabe. INTERSPEECH 2024 Conference [URL]
- 19. OWSM v3. 1: Better and faster open whisper-style speech models based on e-branchformer: Yifan Peng, Jinchuan Tian, William Chen, Siddhant Arora, Brian Yan, Yui Sudo, Muhammad Shakeel, Kwanghee Choi, Jiatong Shi, Xuankai Chang, Jee-weon Jung, Shinji Watanabe. INTERSPEECH 2024 Conference [URL]
- 20. To what extent can ASV systems naturally defend against spoofing attacks?: Jee-weon Jung, Xin Wang, Nicholas Evans, Shinji Watanabe, Hye-jin Shim, Hemlata Tak, Siddhant Arora, Junichi Yamagishi, Joon Son Chung. INTERSPEECH 2024 Conference [URL]
- 21. Semi-Autoregressive Streaming ASR With Label Context: Siddhant Arora, George Saon, Shinji Watanabe, Brian Kingsbury. ICASSP 2024 Conference [URL]
- 22. Joint Modelling of Spoken Language Understanding Tasks with Integrated Dialog History: <u>Siddhant Arora</u>, Hayato Futami, Emiru Tsunoo, Brian Yan, Shinji Watanabe. ICASSP 2023 Conference (IEEE Ganesh N. Ramaswamy Memorial Student Grant) [URL]
- 23. Integrating Pretrained ASR and LM to Perform Sequence Generation for Spoken Language Understanding: Siddhant Arora, Hayato Futami, Yosuke Kashiwagi, Emiru Tsunoo, Brian Yan, Shinji Watanabe. INTERSPEECH 2023 Conference [URL]
- 24. Reproducing Whisper-Style Training Using an Open-Source Toolkit and Publicly Available Data: Yifan Peng, Jinchuan Tian, Brian Yan, Dan Berrebbi, Xuankai Chang, Xinjian Li, Jiatong Shi, Siddhant Arora, William Chen, Roshan Sharma, Wangyou Zhang, Yui Sudo, Muhammad Shakeel, Jee-weon Jung, Soumi Maiti, Shinji Watanabe. ASRU 2023 Conference [URL]
- 25. Dynamic-SUPERB: Towards A Dynamic, Collaborative, and Comprehensive Instruction—Tuning Benchmark for Speech: Chien-yu Huang, Ke-Han Lu, Shih-Heng Wang, Chi-Yuan Hsiao, Chun-Yi Kuan, Haibin Wu, Siddhant Arora, Kai-Wei Chang, Jiatong Shi, Yifan Peng, Roshan Sharma, Shinji Watanabe, Bhiksha Ramakrishnan, Shady Shehata, Hung-yi Lee. ICASSP 2024 Conference [URL]
- 26. PHONEME-AWARE ENCODING FOR PREFIX-TREE-BASED CONTEXTUAL ASR: Hayato Futami, Emiru Tsunoo, Yosuke Kashiwagi, Hiroaki Ogawa, <u>Siddhant Arora</u>, Shinji Watanabe. ICASSP 2024 Conference [URL]
- 27. Integration of Frame-and Label-synchronous Beam Search for Streaming Encoder-decoder Speech Recognition: Emiru Tsunoo, Hayato Futami, Yosuke Kashiwagi, Siddhant Arora, Shinji Watanabe. INTERSPEECH 2023 Conference [URL]
- 28. BASS: Block-wise Adaptation for Speech Summarization: Roshan Sharma, Kenneth Zheng, Siddhant Arora, Shinji Watanabe, Rita Singh, Bhiksha Raj. INTERSPEECH 2023 Conference
- 29. A Comparative Study on E-Branchformer vs Conformer in Speech Recognition, Translation, and Understanding Tasks: Yifan Peng, Kwangyoun Kim, Felix Wu, Brian Yan,

- <u>Siddhant Arora</u>, William Chen, Jiyang Tang, Suwon Shon, Prashant Sridhar, Shinji Watanabe. INTERSPEECH 2023 Conference
- 30. Tensor decomposition for minimization of E2E SLU model toward on-device processing: Yosuke Kashiwagi, Siddhant Arora, Hayato Futami, Jessica Huynh, Shih-Lun Wu, Yifan Peng, Brian Yan, Emiru Tsunoo, Shinji Watanabe. INTERSPEECH 2023 Conference
- 31. **Streaming Joint Speech Recognition and Disfluency Detection**: Hayato Futami, Emiru Tsunoo, Kentaro Shibata, Yosuke Kashiwagi, Takao Okuda, <u>Siddhant Arora</u> and Shinji Watanabe. ICASSP 2023 Conference [URL]
- 32. A Study on the Integration of Pipeline and E2E SLU systems for Spoken Semantic Parsing toward STOP Quality Challenge: Siddhant Arora, Hayato Futami, Shih-Lun Wu, Jessica Huynh, Yifan Peng, Yosuke Kashiwagi, Emiru Tsunoo, Brian Yan, Shinji Watanabe. ICASSP 2023 STOP Challenge (First Place in Quality Track) [URL]
- 33. The Pipeline System of ASR and NLU with MLM-based Data Augmentation toward STOP Low-resource Challenge: Hayato Futami, Jessica Huynh, Siddhant Arora, , Shih-Lun Wu, Yosuke Kashiwagi, Yifan Peng, Brian Yan, Emiru Tsunoo, Shinji Watanabe. ICASSP 2023 STOP Challenge (First Place in Low-resource Domain Adaptation Track) [URL]
- 34. E-BRANCHFORMER-BASED E2E SLU TOWARD STOP ON-DEVICE CHAL-LENGE: Yosuke Kashiwagi, <u>Siddhant Arora</u>, Hayato Futami, Jessica Huynh, Shih-Lun Wu, Yifan Peng, Brian Yan, Emiru Tsunoo and Shinji Watanabe. ICASSP 2023 STOP Challenge (Second Place in On-Device Track) [URL]
- 35. SLUE Phase-2: A Benchmark Suite of Diverse Spoken Language Understanding Tasks: Suwon Shon, Siddhant Arora, Chyi-Jiunn Lin, Ankita Pasad, Felix Wu, Roshan Sharma, Wei-Lun Wu, Hung-Yi Lee, Karen Livescu, Shinji Watanabe. ACL 2023 Conference [URL]
- 36. Token-level Sequence Labeling for Spoken Language Understanding using Compositional End-to-End Models: Siddhart Arora*, Siddharth Dalmia*, Brian Yan, Florian Metze, Alan W Black and Shinji Watanabe. EMNLP 2022 Conference [URL]
- 37. A Study on the Integration of Pre-trained SSL, ASR, LM AND SLU models for Spoken Language Understanding: Yifan Peng*, Siddhant Arora*, Yosuke Higuchi, Yushi Ueda, Sujay Kumar, Karthik Ganesan, Siddharth Dalmia, Xuankai Chang, Shinji Watanabe. SLT 2022 Conference [URL]
- 38. Two-Pass Low Latency End-to-End Spoken Language Understanding: <u>Siddhant Arora</u>, Siddharth Dalmia, Xuankai Chang, Brian Yan, Alan Black, Shinji Watanabe. Interspeech 2022 Conference [URL]
- 39. ESPnet-SLU: Advancing Spoken Language Understanding through ESPnet:
 Siddhant Arora, Siddharth Dalmia, Pavel Denisov, Xuankai Chang, Yushi Ueda, Yifan Peng, Yuekai Zhang, Sujay Kumar, Karthik Ganesan, Brian Yan, Ngoc Thang Vu, Alan W Black, Shinji Watanabe. ICASSP 2022 Conference [URL]
- 40. Explain, Edit, and Understand: Rethinking User Study Design for Evaluating Model Explanations: Siddhant Arora*, Danish Pruthi*, Norman Sadeh, William W. Cohen, Zachary C. Lipton, Graham Neubig. AAAI 2022 Conference [URL]
- 41. Rethinking End-to-End Evaluation of Decomposable Tasks: A Case Study on Spoken Language Understanding: <u>Siddhant Arora</u>*, Alissa Ostapenko*, Vijay Viswanathan*, Siddharth Dalmia*, Florian Metze, Shinji Watanabe, Alan W Black. Interspeech 2021 Conference [URL]

- 42. Blockwise Streaming Transformer for Spoken Language Understanding and Simultaneous Speech Translation: Keqi Deng, Shinji Watanabe, Jiatong Shi, Siddhant Arora. Interspeech 2022 Conference [URL]
- 43. BERT Meets CTC: New Formulation of End-to-End Speech Recognition with Pretrained Masked Language Model: Yosuke Higuchi, Brian Yan, Siddhant Arora, Tetsuji Ogawa, Tetsunori Kobayashi and Shinji Watanabe. EMNLP 2022 Conference [URL]
- 44. CMUs IWSLT 2023 Simultaneous Speech Translation System: Brian Yan, Jiatong Shi, Soumi Maiti, William Chen, Xinjian Li, Yifan Peng, Siddhant Arora, Shinji Watanabe. IWSLT 2023 Conference [URL]
- 45. Teaching Old DB Neu(ral) Tricks: Learning Embeddings on Multi-tabular Databases: Garima Gaur, Rajat Singh, Siddhant Arora, Vinayak Gupta, Srikanta Bedathur. CODS-COMAD 2023 Conference [URL]
- 46. Creation and analysis of an international corpus of privacy laws: Sonu Gupta, Ellen Poplavska, Nora O'Toole, <u>Siddhant Arora</u>, Thomas Norton, Norman Sadeh, Shomir Wilson. LREC-COLING 2024 Conference [URL]
- 47. A Tale of Two Regulatory Regimes: Automated Analysis of Semi-Parallel Privacy Policies in English and German: Siddhant Arora, Henry Hosseini, Christine Utz, Vinayshekhar Banihatti Kumar, Abhilasha Ravichander, Peter Story, Jasmine Mangat, Rex Chen, Martin Degeling, Tom Norton, Thomas Hupperich, Shomir Wilson, Norman Sadeh. LREC 2022 Conference
- 48. **IterefinE: Iterative KG Refinement Embeddings using Symbolic Knowledge**: <u>Siddhant Arora</u>, Srikanta Bedathur, Maya Ramnath, Deepak Sharma. AKBC 2020 Conference [URL]
- 49. Capreolus: A Toolkit for End-to-End Neural Ad Hoc Retrieval: Andrew Yates, Siddhant Arora, Xinyu Zhang, Wei Yang, Kevin Martin Jose, Jimmy Lin. WSDM 2020 Demo Track [URL]

PUBLICATIONS (PREPRINTS)

- 1. On the landscape of spoken language models: A comprehensive survey: <u>Siddhant Arora</u>, Kai-Wei Chang, Chung-Ming Chien, Yifan Peng, Haibin Wu, Yossi Adi, Emmanuel Dupoux, Hung-Yi Lee, Karen Livescu, Shinji Watanabe. Arxiv 2025 [URL]
- 2. BLAB: Brutally Long Audio Bench: Orevaoghene Ahia, Martijn Bartelds, Kabir Ahuja, Hila Gonen, Valentin Hofmann, Siddhant Arora, Shuyue Stella Li, Vishal Puttagunta, Mofetoluwa Adeyemi, Charishma Buchireddy, Ben Walls, Noah Bennett, Shinji Watanabe, Noah A Smith, Yulia Tsvetkov, Sachin Kumar. Arxiv 2025 [URL]
- 3. ARECHO: Autoregressive Evaluation via Chain-Based Hypothesis Optimization for Speech Multi-Metric Estimation: Jiatong Shi, Yifan Cheng, Bo-Hao Su, Hye-jin Shim, Jinchuan Tian, Samuele Cornell, Yiwen Zhao, Siddhant Arora, Shinji Watanabe. Arxiv 2025 [URL]
- 4. **Task Arithmetic for Language Expansion in Speech Translation**: Yao-Fei Cheng, Hayato Futami, Yosuke Kashiwagi, Emiru Tsunoo, Wen Shen Teo, <u>Siddhant Arora</u>, Shinji Watanabe. Arxiv 2024 [URL]
- 5. Decoder-only Architecture for Speech Recognition with CTC Prompts and Text Data Augmentation: Emiru Tsunoo, Hayato Futami, Yosuke Kashiwagi, Siddhant Arora, Shinji Watanabe. Arxiv 2023 [URL]
- 6. A survey on Graph Neural Network for Knowledge Graph Completion: Siddhant Arora. Arxiv 2020 [URL]

PUBLICATIONS (WORKSHOP)

- 1. SLUE-PERB: A Spoken Language Understanding Performance Benchmark and Toolkit: Siddhant Arora, Roshan Sharma, Ankita Pasad, Hira Dhamyal, William Chen, Suwon Shon, Hung-Yi Lee, Karen Livescu, Shinji Watanabe. SPARKS Workshop in ASRU 2023 [URL]
- 2. Investigating Ad-Hoc Retrieval Method Selection with Features Inspired by IR Axioms: Siddhant Arora, Andrew Yates. AMIR Workshop, ECIR 2019 [URL]
- 3. On Embeddings in Relational Database: <u>Siddhant Arora</u> and Srikanta Bedathur. KR2ML Workshop, NeurIPS 2019 [URL]
- 4. Understanding Community Rivalry on Social Media: A Case Study of Two Footballing Giants: Sopan Khosla, Siddhant Arora, Abhilash Nandy, Ankita Saxena, Anandhavelu N. HUMANIZE Workshop, IUI 2019 [URL]
- 5. GATCheck: A Detailed Analysis of Graph Attention Networks: Lovish Madaan*, Siddhant Arora*. Mining and Learning with Graph Workshop, KDD 2020 [URL]

ACADEMIC SERVICE

- Conference Reviewer in INTERSPEECH 2025, ACL 2025, ICASSP 2025, ICLR 2025, ACL 2024, NAACL 2024, ICASSP 2024, AAAI2024, TPAMI 2023, IEEE Signal Processing Letters 2023, ASRU 2023, EMNLP 2023, INTERSPEECH 2023, ACL 2023, ICASSP 2023, EMNLP 2022, AAAI 2022, SLT 2022
- Co-organized "Spoken Language Models for Universal Speech Processing" special session at INTERSPEECH 2024

RESEARCH EXPERIENCE

Graduate Research Assistant

Prof. Shinji Watanabe

CMU Pittsburgh

Dec 2020 - Present

Spoken Language Understanding and Dialog Systems

Graduate Research Assistant CMU Pittsburgh

Prof. Graham Neubig, Prof. Zachary Lipton and Prof. William Cohen Feb. 2021 - Aug. 2021

User Study Design for Evaluating Explanations

Graduate Research Assistant CMU Pittsburgh

Prof. Norman Sadeh Aug. 2020 - Aug. 2022

Multilingual Annotation for Privacy Documents

Undergraduate Research Assistant IIT Delhi

Prof. Srikanta Bedathur

Jul 2019-Jun 2020

Learning Embeddings on Relation Databases and Knowledge Graph Refinement

Undergraduate Research Intern MPII Saarbrucken

Prof. Andrew Yates Jan 2019 - May 2019

Stress Testing IR Models and Open source Toolkit

Undergraduate Research Intern ANU Canberra

Prof. Tom Gedeon Nov 2017 - Dec 2017

Emotion Recognition using user gaze data

WORK EXPERIENCE

Research Scientist Intern Mountain View, CA, US

Meta Reality Labs. Mentors: Zhaojiang Lin, Florian Metze May 2025 - Present

Spoken dialogue systems

Machine Learning Intern New York City, NY, US

Apple Intelligence. Mentors: Zhiyun Lu, Chung-Cheng Chiu, Ruoming Pang May 2024 - Sep 2024

Audio foundation models

Senior Research Intern

Yorktown Heights, NY, US

IBM Research. Mentors: Brian Kingsbury, George Saon May 2023 - Aug 2023

Streaming Non-Autoregressive ASR models

Data Science Summer Intern

Mountain View, CA, US

Bidgely Inc. May 2019 - Jul 2019

Energy Disaggregation for Household

Research Intern

Bangalore, KA, India

Adobe Systems May 2018 - Jul 2018

Understanding Toxic Content Online

TEACHING EXPERIENCE

Teaching Assistant CMU

Prof. Shinji Watanabe Jan 2024 - May 2024, Jan 2025 - May 2025

Speech Technology for Conversational AI

Teaching Assistant CMU

Prof. Shinji Watanabe Jan 2023- May 2023

Speech Processing

Teaching Assistant CMU

Prof. Norman Sadeh Jan 2022- May 2022

Mobile and IoT Computing Services

Teaching Assistant IIT Delhi

Prof. Shravan Kumar Jul 2018-Dec 2018

MTL100 course (Calculus)

Teaching Assistant IIT Delhi

Prof. Subodh Kumar Jul 2019-Dec 2019

COL106 (Data Structures)

Teaching Assistant IIT Delhi

Prof. Rijurekha Sen Jan 2020-May 2020

COL380 (Parallel and Distributed Programming)

INVITED TALKS & PANELS

- 1. "UniverSLU: Universal Spoken Language Understanding for Diverse Classification and Sequence Generation Tasks with a Single Network". Oral Presentation, **NAACL 2024**. June 2024.
- "Semi-Autoregressive Streaming ASR With Label Context". Oral Presentation, ICASSP 2024. April 2024.

- 3. "Joint Modelling of Spoken Language Understanding Tasks with Integrated Dialog History". Oral Presentation, ICASSP 2023. June 2023.
- 4. "A Study on the Integration of Pipeline and E2E SLU systems for Spoken Semantic Parsing toward STOP Quality Challenge". Oral Presentation, ICASSP 2023 STOP Challenge. June 2023.
- 5. "Towards Robust End to End Spoken Language Understanding". **Invited Talk at 3M**. April 2023.
- 6. "Towards Robust End to End Spoken Language Understanding". Lightning Talk at LTI Open House. March 2023.
- 7. "Two-Pass Low Latency End-to-End Spoken Language Understanding". Oral Presentation, Interspeech 2022. September 2022.
- 8. "Explain, Edit, and Understand: Rethinking User Study Design for Evaluating Model Explanations". Oral Presentation, AAAI 2022. February 2022.
- 9. "Finding a Choice in a Haystack: Automatic Extraction of Opt-Out Statements from Privacy Policy Text". FTC Privacy Con. June 2021.
- 10. "Using NLP to Understand Differences in Privacy Disclosures and Protections under Different Jurisdictions". Cylabs Lab Tour. October 2021.