Yu Su

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Education

University of California, Santa Barbara   *Santa Barbara, CA, USA*

PH.D. IN COMPUTER SCIENCE   *2012 - 2018*

- Advisor: Xifeng Yan
- Dissertation: *Towards Democratizing Data Science with Natural Language Interfaces*
- *Outstanding Dissertation Award*

Tsinghua University   *Beijing, China*

B.ENG. IN COMPUTER SCIENCE AND TECHNOLOGY   *2008 - 2012*

- *Outstanding Freshman & Outstanding Graduate Awards*

Professional Experience

Department of Computer Science & Engineering, The Ohio State University   *Columbus, OH, USA*

DISTINGUISHED ASSISTANT PROFESSOR OF ENGINEERING INCLUSIVE EXCELLENCE   *2020 - Present*
LEAD OF FOUNDATIONAL AI, ICICLE AI INSTITUTE
LEAD OF MACHINE LEARNING FOUNDATIONS, IMAGEOMICS INSTITUTE

Microsoft Semantic Machines   *Berkeley, CA, USA*

SENIOR RESEARCHER   *2018 - Present*

Department of Computer Science & Engineering, The Ohio State University   *Columbus, OH, USA*

VISITING ASSISTANT PROFESSOR   *2018 - 2019*

Microsoft Research   *Redmond, WA, USA*

RESEARCH INTERN   *2016, 2017*

U.S. Army Research Laboratory   *Adelphi, MD, USA*

VISITING RESEARCHER   *2015, 2016*

IBM T.J. Watson Research Center   *Yorktown Heights, NY, USA*

RESEARCH INTERN   *2015*

Honors & Awards

2023	Outstanding Paper Award	*ACL*
2023	Lumley Research Award	*OSU*
2022	Outstanding Paper Award	*COLING*
2022	Distinguished Assistant Professorship of Engineering Inclusive Excellence	*OSU*
2022	Third-Place Honor, Inaugural Alexa Prize TaskBot Challenge	*Amazon*
2020	Work at Microsoft Deployed as the Official Conversational Interface for Outlook	*Microsoft*
2019	Best of IEEE ICDM 2019 Selection	*IEEE*
2019	Outstanding Dissertation Award	*UCSB*
2018	Best Distinguished Graduate Student Lecture	*UCSB*
2012	Outstanding Graduate Award	*Tsinghua University*
2009 - 2011	Merit-based Scholarships	*Tsinghua University*
2008	Outstanding Freshman Award	*Tsinghua University*

Teaching

AU22	CSE5889: Experiential Introduction to Imageomics (G)	*OSU*
AU22	(SEI=4.57/5) CSE6521: Artificial Intelligence (G)	*OSU*
SP22	(SEI=4.13/5) CSE5525: Foundations of Speech and Language Processing (U/G)	*OSU*
AU21	(SEI=4.22/5) CSE6521: Artificial Intelligence (G)	*OSU*
AU20	(SEI=4.75/5) CSE5539: Cutting-Edge Topics in Natural Language Processing (U/G)	*OSU*
SP20	(SEI=4.61/5) CSE5243: Introduction to Data Mining (U/G)	*OSU*

Grants

Since joining OSU in 2020, I have obtained 12 funded projects (9 of which as PI or Co-PI), totaling over $40M, with approximately $3.3M for my share. In addition to foundational AI research, I also actively participate in large multi-disciplinary endeavors and serve in leadership roles. I serve as lead of Foundational AI in the NSF AI Institute - ICICLE and lead of Machine Learning Foundations in the NSF HDR Institute - Imageomics.

[12] **NIH R01:** *Machine Learning Drives Translational Drug Interaction and Pharmacogenetics Research*
Role: MPI. Grant: $3,118,680. 2023-2027. *Impact Score from Review Panel: 10, top 1%.*

[11] **OSU Internal Grant for Large Langauge Model Research**
Role: PI. Grant: $150,000. 2023-2025.

[10] **Army Research Lab:** *Knowledge-based Cumulative and Efficient Task Learning of Intelligent Agents*
Role: Sole PI. Grant: $464,230. 2022-2025 (with an option year).

[9] **Cisco:** *Transformer-based Graph Neural Networks for Knowledge Graph Reasoning at Scale*
Role: Sole PI. Grant: $199,876. 2022-2023.

[8] **Cisco:** *Building Transparent Interactive Natural Language Interfaces to Databases*
Role: Co-PI. PI: Huan Sun. Grant: $199,976. My share: $64,184. 2022-2023.

[7] **Walmart:** *Product Question Answering for Walmart Online Shopping*
Role: Sole PI. Grant: $120,109. 2022-2023.

[6] **Amazon:** *Alexa Prize Simbot Challenge*
Role: Sole PI. Grant: $250,000. 2022-2023.

[5] **NSF National AI Research Institute:** *ICICLE: Intelligent CyberInfrastructure with Computational Learning in the Environment*
Role: Senior Personnel (*Lead of Foundational AI*). PI: Dhabaleswar K. Panda. Grant: $19,999,998. My share: approximately $450,000. 2021-2026.

[4] **NSF HDR Institute:** *Imageomics: A New Frontier of Biological Information Powered by Knowledge-guided Machine Learning*
Role: Senior Personnel (*Lead of ML Foundations*). PI: Tanya Berger-Wolf. Grant: $14,969,077. My share: approximately $800,000. 2021-2026.

[3] **NSF Convergence Accelerator:** *Actionable Sensemaking Tools for Curating and Authenticating Information in the Presence of Misinformation during Crises*
Role: Senior Personnel. PI: Srinivasan Parthasarathy. Grant: $749,997. 2021-2022.

[2] **OSU TDAI Research Pilot Grant:** *Practical and Comprehensive Social Media Pharmacovigilance*
Role: Sole PI. Grant: $50,000. 2021-2022.

[1] **Fujitsu Lab of America:** *Large-scale, Ontology-preserving Knowledge Graph Embedding*
Role: Sole PI. Gift grant: $50,000. 2020-2021.

Publications

I have published 44 refereed articles, including 3 journal, 7 workshop, and 43 conference articles. 34 of the conference publications appear in top conferences per csrankings.org including ACL (11) , EMNLP (14), NAACL (3), WWW (2), SIGKDD (1), CVPR (1), SIGIR (1), and AAAI (1).

[+]: My advisee at OSU. [#]: My intern at Microsoft

Journal Papers

[3] **Detecting Drug-Drug Interactions Between COVID-19 Therapies and Concomitant Medications Using the FDA Adverse Event Reporting System**
Eugene Jeong, Scott D Nelson, Yu Su, Bradley Malin, Lang Li, You Chen
Frontiers in Pharmacology, 2022

[2] **Random Control Selection for Conducting High-throughput Adverse Drug Events Screening Using Large-scale Longitudinal Health Data**
Chien-Wei Chiang, Pengyue Zhang, Macarius Donneyong, You Chen, Yu Su, Lang Li
CPT: Pharmacometrics & Systems Pharmacology (**PSP**), 2021

[1] **Task-Oriented Dialogue as Dataflow Synthesis**
Semantic Machines, Jacob Andreas, John Bufe, David Burkett, Charles Chen, Josh Clausman, Jean Crawford, Kate Crim, Jordan DeLoach, Leah Dorner, Jason Eisner, Hao Fang, Alan Guo, David Hall, Kristin Hayes, Kellie Hill, Diana Ho, Wendy Iwaszuk, Smriti Jha, Dan Klein, Jayant Krishnamurthy, Theo Lanman, Percy Liang, Christopher H. Lin, Ilya Lintsbakh, Andy McGovern, Aleksandr Nisnevich, Adam Pauls, Dmitrij Petters, Brent Read, Dan Roth, Subhro Roy, Jesse Rusak, Beth Short, Div Slomin, Ben Snyder, Stephon Striplin, Yu Su, Zachary Tellman, Sam Thomson, Andrei Vorobev, Izabela Witoszko, Jason Wolfe, Abby Wray, Yuchen Zhang, and Alexander Zotov
Transactions of the Association for Computational Linguistics (**TACL**), 2020
Deployed as the official conversational interface for Microsoft Outlook

Conference Papers

[43] ***Don't Generate, Discriminate*: A Proposal for Grounding Language Models to Real-World Environments**
Yu Gu[+], Xiang Deng, Yu Su
Annual Conference of the Association for Computational Linguistics (**ACL**), 2023
Outstanding Paper Award

[42] **Few-shot In-context Learning on Knowledge Base Question Answering**
Tianle Li, Xueguang Ma, Alex Zhuang, Yu Gu[+], Yu Su, Wenhu Chen
Annual Conference of the Association for Computational Linguistics (**ACL**), 2023

[41] **Federated Learning for Semantic Parsing: Task Formulation, Evaluation Setup, New Algorithms**
Tianshu Zhang, Changchang Liu, Wei-Han Lee, Yu Su, Huan Sun
Annual Conference of the Association for Computational Linguistics (**ACL**), 2023

[40] **Privacy-Preserving Domain Adaptation of Semantic Parsers**
Fatemehsadat Mireshghallah[#], Yu Su, Tatsunori Hashimoto, Jason Eisner, Richard Shin
Annual Conference of the Association for Computational Linguistics (**ACL**), 2023

[39] **Text-to-SQL Error Correction with Language Models of Code**
Ziru Chen, Shijie Chen[+], Michael White, Raymond Mooney, Ali Payani, Jayanth Srinivasa, Yu Su, Huan Sun
Annual Conference of the Association for Computational Linguistics (**ACL**), short paper, 2023

[38] **Aligning Instruction Tasks Unlocks Large Language Models as Zero-Shot Relation Extractors**
Kai Zhang[+], Bernal Jimenez Gutierrez[+], Yu Su
Annual Conference of the Association for Computational Linguistics: Findings (**Findings of ACL**), 2023

[37] **When More Data Hurts: A Troubling Quirk in Developing Broad-Coverage Natural Language Understanding Systems**
Elias Stengel-Eskin[#], Emmanouil Antonios Platanios, Adam Pauls, Sam Thomson, Hao Fang, Benjamin Van Durme, Jason Eisner, and Yu Su
Conference on Empirical Methods in Natural Language Processing (**EMNLP**), 2022

[36] **Thinking about GPT-3 In-Context Learning for Biomedical IE? Think Again**
Bernal Jiménez Gutiérrez[+], Nikolas McNeal[+], Clay Washington[+], You Chen, Lang Li, Huan Sun, and Yu Su
Conference on Empirical Methods in Natural Language Processing: Findings (**Findings of EMNLP**), 2022

[35] **Knowledge Base Question Answering: A Semantic Parsing Perspective**
Yu Gu[+], Vardaan Pahuja[+], Gong Cheng, and Yu Su
Conference on Automated Knowledge Base Construction (**AKBC**), 2022

[34] **ArcaneQA: Dynamic Program Induction and Contextualized Encoding for Knowledge Base Question Answering**
Yu Gu[+] and Yu Su
International Conference on Computational Linguistics (**COLING**), 2022
Outstanding Paper Award

[33] **Bootstrapping a User-Centered Task-Oriented Dialogue System**
Shijie Chen[+], Ziru Chen, Xiang Deng, Ashley Lewis, Lingbo Mo, Samuel Stevens[+], Zhen Wang, Xiang Yue, Tianshu Zhang, Yu Su, Huan Sun
Alexa Prize TaskBot Challenge Proceedings, 2022

[32] **One Step at a Time: Long-Horizon Vision-and-Language Navigation with Milestones**
Chan Hee Song[+], Jihyung Kil, Tai-Yu Pan, Brian M. Sadler, Wei-Lun Chao, Yu Su
IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), 2022

[31] **Bridging the Generalization Gap in Text-to-SQL Parsing with Schema Expansion**
Chen Zhao[#], Yu Su, Adam Pauls, Emmanouil Antonios Platanios
Annual Conference of the Association for Computational Linguistics (**ACL**), 2022

[30] **ReasonBERT: Pre-trained to Reason with Distant Supervision**
Xiang Deng, Yu Su, Alyssa Lees, You Wu, Cong Yu, and Huan Sun
Conference on Empirical Methods in Natural Language Processing (**EMNLP**), 2021

[29] **A Systematic Investigation of KB-Text Embedding Alignment at Scale**
Vardaan Pahuja[+], Yu Gu[+], Wenhu Chen, Mehdi Bahrami, Lei Liu, Wei-Peng Chen, and Yu Su
Annual Conference of the Association for Computational Linguistics (**ACL**), 2021

[28] **Compositional Generalization for Neural Semantic Parsing via Span-level Supervised Attention**
Pengcheng Yin, Hao Fang, Graham Neubig, Adam Pauls, Emmanouil Antonios Platanios, Yu Su, Sam Thomson, and Jacob Andreas
Annual Conference of the North American Chapter of the Association for Computational Linguistics - Human Language Technologies (**NAACL-HLT**), short paper, 2021

[27] **Beyond I.I.D.: Three Levels of Generalization for Question Answering on Knowledge Bases**
Yu Gu[+], Sue Kase, Michelle Vanni, Brian Sadler, Percy Liang, Xifeng Yan, and Yu Su
The Web Conference (**TheWebConf, previously WWW**), 2021

[26] **An Imitation Game for Learning Semantic Parsers from User Interaction**
Ziyu Yao, Yiqi Tang[+], Scott Wen-tau Yih, Huan Sun, and Yu Su
Conference on Empirical Methods in Natural Language Processing (**EMNLP**), 2020

[25] **KGPT: Knowledge-Grounded Pre-Training for Data-to-Text Generation**
Wenhu Chen, Yu Su, Xifeng Yan, and William Yang Wang
Conference on Empirical Methods in Natural Language Processing (**EMNLP**), 2020

[24] **Document Classification for COVID-19 Literature**
Bernal Jiménez Gutiérrez[+], Jucheng Zeng, Dongdong Zhang, Ping Zhang, and Yu Su
Findings of EMNLP, short paper, 2020

[23] **Logical Natural Language Generation from Open-Domain Tables**
Wenhu Chen, Jianshu Chen, Yu Su, Zhiyu Chen, and William Yang Wang
Annual Conference of the Association for Computational Linguistics (**ACL**), 2020

[22] **Model-based Interactive Semantic Parsing: A Unified Formulation and A Text-to-SQL Case Study**
Ziyu Yao, Yu Su, Huan Sun, and Scott Wen-tau Yih
Conference on Empirical Methods in Natural Language Processing (**EMNLP**), 2019

[21] **HierCon: Hierarchical Organization of Technical Documents based on Concepts**
Keqian Li, Shiyang Li, Semih Yavuz, Hanwen Zha, Yu Su, and Xifeng Yan
IEEE International Conference on Data Mining (**ICDM**), 2019
Best of ICDM 2019 Selection

[20] **Global Textual Relation Embedding for Relational Understanding**
Zhiyu Chen, Hanwen Zha, Honglei Liu, Wenhu Chen, Xifeng Yan, and Yu Su
Annual Conference of the Association for Computational Linguistics (**ACL**), short paper, 2019

[19] **How Large A Vocabulary Does Text Classification Need? A Variational Approach on Vocabulary Selection**
Wenhu Chen, Yu Su, Yilin Shen, Zhiyu Chen, Xifeng Yan and William Yang Wang
Annual Conference of the North American Chapter of the Association for Computational Linguistics (**NAACL**), 2019

[18] **Learning to Compose Topic-Aware Mixture of Experts for Zero-Shot Video Captioning**
Xin Wang, Jiawei Wu, Da Zhang, Yu Su, William Yang Wang
AAAI Conference on Artificial Intelligence (**AAAI**), 2019

[17] **Concept Mining via Embedding**
Keqian Li, Hanwen Zha, Yu Su, Xifeng Yan
IEEE International Conference on Data Mining (**ICDM**), 2018

[16] **XL-NBT: A Cross-lingual Neural Belief Tracking Framework**
Wenhu Chen, Jianshu Chen, Yu Su, Xin Wang, Dong Yu, Xifeng Yan and William Yang Wang
23th Conference on Empirical Methods in Natural Language Processing (**EMNLP**), 2018

[15] **What It Takes to Achieve 100% Condition Accuracy on WikiSQL**
Semih Yavuz, Izzeddin Gur, Yu Su, Xifeng Yan
23th Conference on Empirical Methods in Natural Language Processing (**EMNLP**), 2018

[14] **DialSQL: Dialogue Based Structured Query Generation**
Izzeddin Gur, Semih Yavuz, Yu Su, Xifeng Yan
56th Annual Meeting of the Association for Computational Linguistics (**ACL**), 2018
(Acceptance rate: 258/1018=25.3%)

[13] **Natural Language Interfaces with Fine-Grained User Interaction: A Case Study on Web APIs**
Yu Su, Ahmed H. Awadallah, Miaosen Wang, Ryen White
41st International ACM SIGIR Conference on Research and Development in Information Retrieval (**SIGIR**), 2018
(Acceptance rate: 86/409=21.0%)

[12] **Global Relation Embedding for Relation Extraction**
Yu Su*, Honglei Liu*, Semih Yavuz, Izzeddin Gur, Huan Sun, Xifeng Yan (*: equal contribution)
16th Annual Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (**NAACL-HLT**), 2018
(Acceptance rate: 207/665=31.1%)

[11] **Unsupervised Neural Categorization for Scientific Publications**
Keqian Li, Hanwen Zha, Yu Su, Xifeng Yan
18th SIAM International Conference on Data Mining (**SDM**), 2018
(Acceptance rate: 87/375=23.2%)

[10] **Building Natural Language Interfaces to Web APIs**
Yu Su, Ahmed H. Awadallah, Patrick Pantel, Michael Gamon, Madian Khabsa, Mark Encarnacion
26th ACM International Conference on Information and Knowledge Management (**CIKM**), 2017
(Acceptance rate: 171/820=20.9%)

[9] **Cross-domain Semantic Parsing via Paraphrasing**
Yu Su, Xifeng Yan
22th Conference on Empirical Methods in Natural Language Processing (**EMNLP**), 2017
(Acceptance rate: 216/836=25.8%)

[8] **An End-to-End Deep Framework for Answer Triggering with a Novel Group-Level Objective**
Jie Zhao, Yu Su, Ziyu Guan, Huan Sun
22th Conference on Empirical Methods in Natural Language Processing (**EMNLP**), short paper, 2017
(Acceptance rate: 107/582=18.4%)

[7] **Recovering Question Answering Errors via Query Revision**
Semih Yavuz, Izzeddin Gur, Yu Su, Xifeng Yan
22th Conference on Empirical Methods in Natural Language Processing (**EMNLP**), short paper, 2017
(Acceptance rate: 107/582=18.4%)

[6] **On Generating Characteristic-rich Question Sets for QA Evaluation**
Yu Su, Huan Sun, Brian Sadler, Mudhakar Srivatsa, Izzeddin Gur, Zenghui Yan, Xifeng Yan
21th Conference on Empirical Methods in Natural Language Processing (**EMNLP**), 2016
(Acceptance rate: 177/687=25.8%)

[5] **Improving Semantic Parsing via Answer Type Inference**
Semih Yavuz, Izzeddin Gur, Yu Su, Mudhakar Srivatsa, Xifeng Yan
21th Conference on Empirical Methods in Natural Language Processing (**EMNLP**), 2016
(Acceptance rate: 177/687=25.8%)

[4] **A Fast Kernel for Attributed Graphs**
Yu Su, Fangqiu Han, Richard E. Harang, Xifeng Yan
16th SIAM International Conference on Data Mining (**SDM**), 2016
(Acceptance rate: 96/371=25.9%)

[3] **Table Cell Search for Question Answering**
Huan Sun, Hao Ma, Xiaodong He, Wen-Tau Yih, Yu Su, Xifeng Yan
25th International Conference on World Wide Web (**WWW**), 2016
(Acceptance rate: 115/727=15.8%)

[2] **Visual Graph Query Formulation and Exploration: A New Perspective on Information Retrieval at the Edge**
Sue Kase, Michelle Vanni, Joanne Knight, Yu Su, Xifeng Yan
SPIE 9851, Next-Generation Analyst IV (**SPIE Defense+Security**), 2016

[1] **Exploiting Relevance Feedback in Knowledge Graph Search**
Yu Su, Shengqi Yang, Huan Sun, Mudhakar Srivatsa, Sue Kase, Michelle Vanni, Xifeng Yan
21th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (**KDD**), 2015
(Acceptance rate: 160/819=19.5%)

Refereed Workshop Papers

[7] **LLM-Planner: Few-Shot Grounded Planning for Embodied Agents with Large Language Models**
Chan Hee Song[+], Jiaman Wu[+], Clayton Washington[+], Brian M. Sadler, Wei-Lun Chao, Yu Su
Embodied AI Workshop at CVPR, 2023

[6] **SalsaBot: Towards a Robust and Generalizable Embodied Agent**
Chan Hee Song[+], Jiaman Wu[+], Ju-Seung Byun, Zexin Xu[+], Vardaan Pahuja[+], Goonmeet Bajaj, Samuel Stevens[+], Ziru Chen, Yu Su
Embodied AI Workshop at CVPR, 2023

[5] **Biomedical Language Models are Robust to Sub-optimal Tokenization**
Bernal Jimenez Gutierrez[+], Huan Sun, Yu Su
BioNLP Workshop at ACL, 2023

[4] **Error Detection for Interactive Text-to-SQL Semantic Parsing**
Shijie Chen[+], Ziru Chen, Huan Sun, Yu Su
InterNLP Workshop at NeurIPS, 2022

[3] **Understanding Mimicry in Butterflies from Images using Machine Learning**
Reshma R Babu, Yael Stochel, Christopher Lawrence, Daniel Rubenstein, Chuck Stewart, Wei-Lun Chao, David Carlyn, Jihyung Kil, Yu Su, Luke Song[+], Anuj Karpatne, Mohannad Elhamod, Krzysztof Kozak, Owen McMillan, Tanya Berger-Wolf
CV4Animals Workshop at CVPR, 2022

[2] **An Investigation of Language Model Interpretability via Sentence Editing**
Samuel Stevens[+] and Yu Su
BlackboxNLP Workshop at EMNLP, 2021

[1] **On the Validity of Geosocial Mobility Traces**
Zengbin Zhang, Lin Zhou, Xiaohan Zhao, Gang Wang, Yu Su, Miriam Metzger, Haitao Zheng, and Ben Y. Zhao
12th ACM Workshop on Hot Topics in Networks (**HotNets**), 2013
(Acceptance rate: 26/110=23.6%)

CONFERENCE TUTORIALS

[2] **Scalable Construction and Querying of Massive Knowledge Bases**
Xiang Ren, Yu Su, Pedro Szekely, Xifeng Yan
The Web Conference (**TheWebConf**), 2018

[1] **Construction and Querying of Large-Scale Knowledge Bases**
Xiang Ren, Yu Su, Xifeng Yan
26th ACM International Conference on Information and Knowledge Management (**CIKM**), 2017

Students

PHD STUDENTS
- Yu Gu (SP20 -): semantic parsing and grounded language understanding
- Vardaan Pahuja (SP20 -): knowledge-based reasoning with graph neural networks
- Bernal Jiménez Gutiérrez (SP20 -): natural language processing for biomedicine
- Chan Hee (Luke) Song (AU20 -): grounded language understanding for embodied AI
- Samuel Stevens (AU21 -): (multimodal) foundation models
- Shijie Chen (AU21 - , co-advised with Huan Sun): semantic parsing
- Kai Zhang (AU22 -): low-resource information extraction with foundation models
- Jiaman (Lisa) Wu (AU22 - , co-advised with Wei-Lun Chao): grounded language understanding for embodied AI

MASTER STUDENTS
- Jason Xu (AU22 -)

UNDERGRADUATE STUDENTS
- Eddy Luo (OSU CSE; 2022 -): Submission to NeurIPS'23.
  Clay Washington (OSU CIS; 2021 -): Publication at Findings of EMNLP'22. Submission to ICCV'23.
- Nikolas McNeal (OSU CIS; 2021 -): Publication at Findings of EMNLP'22.
- Alison Zhong (OSU CSE; 2022 -)
- Sparsh Kustagishettar (OSU CSE; 2022 -)
- Samuel Stevens (OSU CSE; 2020 - 2021): Publication at BlackboxNLP'22. Placement: PhD at OSU.

HIGH SCHOOL STUDENTS
- Evan Huang (2021 summer): Submission to AMIA 2022 Annual Symposium High School Scholars program

GRADUATE DISSERTATION/THESIS COMMITTEE MEMBER
- Hong You Chen (CSE PhD): "New Aspects in Deep Federated Learning Towards Matching the Centralized Performance"
- Xiang Deng (CSE PhD): "AI-powered Data System: Unified Semantic Layer and Natural Language Interface"
- Arpan Jain (CSE PhD): "Novel Parallelization Strategies for High-Performance DNN Training on HPC Systems"

- Zichen Zhang (CSE PhD): "Design of Unmanned Aerial Systems for Precision Agriculture using Machine Learning Techniques"
- Zhen Wang (CSE PhD): "Knowledge-Centric Natural Language Processing: Acquisition, Representation and Reasoning"
- Saumya Sahai (CSE MS): "A Study on Informal Fallacies in Online Discussions"
- Ziyu Yao (CSE PhD): "On Advancing Natural Language Interfaces: Data Collection, Model Development, and User Interaction"
- Md Muntasir Zitu (BMI PhD): "Identification of Adverse Drug Events from clinical free texts of Electronic Health Records (EHR) data using Natural Language Processing"
- Jie Zhao (CSE PhD): "Towards Building Trustworthy Automatic Question Answering Systems"
- Semih Cayci (ECE PhD): "Online Learning for Optimal Control of Communication and Computing Systems"
- Adam Stiff (CSE PhD): "Mitigation of Data Scarcity Issues for Semantic Classification in a Virtual Patient Dialogue Agent"

Professional Service

ORGANIZING COMMITTEE
- Workflow Co-Chair, SIGKDD 2023.
- Faculty Advisor to Student Research Workshop, NAACL 2021.
- First Workshop on Natural Language Processing for Programming, Bangkok, Thailand, 2021 (co-located with ACL).
- First Workshop on Natural Language Interfaces (NLI), Seattle, United States, 2020 (co-located with ACL).
- First Workshop on Knowledge Base Construction, Reasoning and Mining (KBCOM), Los Angeles, United States, 2018 (co-located with WSDM).

PROGRAM COMMITTEE MEMBER/REVIEWER
- Annual Meeting of the Association for Computational Linguistics (**ACL**): 2017-2023 (**area chair** in 2022/2023)
- Conference on Empirical Methods in Natural Language Processing (**EMNLP**): 2017-2022
- Annual Conference of the North American Chapter of the Association for Computational Linguistics (**NAACL**): 2019, 2021, 2022
- ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (**KDD**): 2018-2023 (**session chair** in 2019 and 2020)
- The IEEE / CVF Computer Vision and Pattern Recognition Conference (**CVPR**): 2023
- AAAI Conference on Artificial Intelligence (**AAAI**): 2019, 2021, 2022 (**Senior PC**)
- The International World Wide Web Conference (**WWW**): 2018
- SIAM International Conference on Data Mining (**SDM**): 2019
- ACM International Conference on Information and Knowledge Management (**CIKM**): 2017
- Conference on Automated Knowledge Base Construction (**AKBC**): 2019-2022
- Conference on Computational Natural Language Learning (**CoNLL**): 2018
- CCF Conference on Natural Language Processing and Chinese Computing (**NLPCC**): 2017, 2018, 2020 (**area chair**)
- ACL Rolling Review (**ARR**): 2021 - present
- Transactions of the Association for Computational Linguistics (**TACL**): 2021 - present
- IEEE Transactions on Neural Networks and Learning Systems (**TNNLS**): 2020 - present
- IEEE Transactions on Knowledge and Data Engineering (**TKDE**): 2017 - present

OUTREACH ACTIVITIES
- 2020-present. Faculty mentor in the Ohio State LSAMP (Louis Stokes Alliances for Minority Participation) Program.
  - Mentor female African-American undergraduate students in CSE.
- March 2018. Introduce data science and AI to high school students from Laguna Blanca School, Santa Barbara, CA.
- March 2018. "Afternoon with Academia," UCSB chapter of Society of Asian Scientists and Engineers.

UNIVERSITY SERVICE
- Faculty advisor to OSU Competitive Programming Club: 2020-present

- TDAI Fall Forum Organizing Committee: 2021
- Diversity and Inclusion Committee: 2022-2023
- Graduate Admission Committee: 2019-2022 (campus visit co-organizer in 2022)
- Space Committee: 2020-2021
- Faculty Search Committee: AI (2021-2022), Human-Centric Computing (2021-2022)

Invited Talks

[28] AI: The Status Quo
OSU RISK Institute. June 6, 2023.

[27] Grounding Language Models to Real-World Environments
Army Research Lab. June 2, 2023.

[26] Grounding Language Models to Real-World Environments
Amazon. March 30, 2023.

[25] Grounding Language Models to Real-World Environments
University of Tokyo. March 7, 2023.

[24] Will Graphs Lead to the Next Breakthrough of Conversational AI?
University of Delaware. November 16, 2022.

[23] Will Graphs Lead to the Next Breakthrough of Conversational AI?
Workshop of Deep Learning on Graphs for Natural Language Processing@NAACL'22. July 15, 2022. Seattle, United States.

[22] A New Paradigm of Conversational AI
OSU TDAI Deep Learning Summer School. June 2, 2022. Columbus, Ohio, United States.

[21] Emerging Frontiers of Conversational AI
JD.com, Inc. April 28, 2022. Virtual.

[20] Emerging Frontiers of Conversational AI
Nanjing University. April 20, 2022. Virtual.

[19] Emerging Frontiers of Conversational AI
Institute for Interdisciplinary Information Sciences, Tsinghua University. November 2, 2021. Virtual.

[18] Emerging Frontiers of Conversational AI
USC. November 2, 2021. Virtual.

[17] Emerging Frontiers of Conversational AI
Beijing Academy of Artificial Intelligence. May 6, 2021. Beijing, China.

[16] Task-Oriented Dialogue as Dataflow Synthesis
Faculty-in-Focus Seminar, CSE@OSU. November 09, 2020. Columbus, OH, United States.

[15] Towards Democratizing Data Science with AI-powered Knowledge Engines
Stanfard NLP Seminar. February 07, 2019. Stanford, CA, United States.

[14] Bridging the Gap between Human and Data with AI
Microsoft Semantic Machines. August 13, 2018. Berkeley, CA, United States.

[13] Bridging the Gap between Human and Data with AI
Fudan University. July 24, 2018. Shanghai, China.

[12] Bridging the Gap between Human and Data with AI
Tsinghua University. June 21, 2018. Beijing, China.

[11] Bridging the Gap between Human and Data with AI
Fujitsu Laboratories of America. March 9, 2018. Sunnyvale, California, United States.

[10] Bridging the Gap between Human and Data with AI
University of Massachussetts. February 15, 2018. Amherst, Massachusetts, United States.

[9] Bridging the Gap between Human and Data with AI
BMI@OSU. January 26, 2018. Columbus, Ohio, United States.

[8] Bridging the Gap between Human and Data with AI
CSE@OSU. January 25, 2018. Columbus, Ohio, United States.

[7]   On Building Natural Language Interface to Data and Services
      Toutiao AI Lab. October 17, 2017. Beijing, China.

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