Alyssa Hwang

ahwang16@seas.upenn.edu · alyssahwang.com
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Education

University of Pennsylvania – Philadelphia, PA
Sept 2020 – Present
PhD in Computer and Information Science
Advisors: Andrew Head, Chris Callison-Burch

Columbia University – New York, NY
May 2020
BS in Computer Science
Advisor: Kathleen McKeown
Thesis: Towards Augmenting Lexical Resources for Slang and African American English

Research Interests

I design systems that allow users to interact with complex information through large language models. I recently conducted an in-depth observational study to propose several guidelines for adapting text instructions for voice assistants. I am currently using large language models to help users fluidly navigate information while listening to scientific papers. I also work on evaluating the large language models themselves by developing human-centered annotation tasks for complex text data.

Honors

2023	**Penn Engineering** Outstanding Service Award
2022	**Amazon Alexa Taskbot Competition** Finalist Team
2022	**CRA-WP Grad Cohort for Women** Invited Attendee
2020	**Columbia University** Theodore R. Bashkow Award
	Presented to a computer science senior who has excelled in independent projects.
2020	**National Science Foundation** Graduate Research Fellowship Program
2019	**Google** Grace Hopper Celebration Travel Scholarship
2018	**Johnson & Johnson** Summer Research Grant
2018	**Columbia University** Data Science Institute Scholars Program and Grant
2016	**Elks National Foundation** Most Valuable Student Scholarship National Finalist

Publications, Articles, and Preprints

* Equal contribution

arXiv 2023	**Large Language Models as Sous Chefs: Revising REcipes with GPT-3** **Alyssa Hwang***, Bryan Li*, Zhaoyi Hou*, Dan Roth. *arXiv preprint.*
DIS 2023	**Rewriting the Script: Adapting Text Instructions for Voice Interaction** **Alyssa Hwang**, Natasha Oza, Chris Callison-Burch, Andrew Head. *Designing Interactive Systems Conference.*
Amazon 2022	**QuakerBot: A Household Dialog System Powered by Large Language Models** Artemis Panagopoulou, Manni Arora, Li Zhang, Dimitri Cugini, Weiqiu You, Yue Yang, Liyang Zhou, Yuxuan Wang, Zhaoyi Hou, **Alyssa Hwang**, Lara Martin, Sherry Shi, Chris Callison-Burch, Mark Yatskar. *Alexa Prize Taskbot Proceedings.*
VarDial 2020	**Towards Augmenting Lexical Resources for Slang and African American English** **Alyssa Hwang**, William R. Frey, and Kathleen McKeown *Workshop on NLP for Similar Languages, Varieties and Dialects (co-located with COLING).*
EMNLP 2019	**AMPERSAND: Argument Mining for PERSuAsive oNline Discussions** Tuhin Chakrabarty, Christopher Hidey, Smaranda Muresan, Kathy McKeown, **Alyssa Hwang** *2019 Conference on Empirical Methods in Natural Language Processing and 9th International Joint Conference on Natural Language Processing.*
MWE-WN 2019	**Confirming the Non-compositionality of Idioms for Sentiment Analysis** **Alyssa Hwang** and Christopher Hidey *Joint Workshop on Multiword Expressions and WordNet (co-located with ACL).*
ArgMining 2017	**Analyzing the Semantic Types of Claims and Premises in an Online Persuasive Forum** Christopher Hidey, Elena Musi, **Alyssa Hwang**, Smaranda Muresan, and Kathleen McKeown *ACL 4th Workshop on Argument Mining (2017)*

Industry Experience

Summer 2022	**AWS Comprehend** (Applied Scientist Intern) – New York, NY *NewsQs: Multi-Source Question Generation for the Inquiring Mind* *In submission at EMNLP 2023.* *Hosts*: Kathleen McKeown, Kalpit Dixit
Summer 2021	**Google** (Software Engineering Intern) – Pittsburgh, PA *Image Ranking for Shopping* *Hosts*: Wei Wan, Tao Chen
Summer 2020	**Google** (Software Engineering Intern) – Mountain View, CA *Dialogue Act Recognition for Dialogflow* *Hosts*: Chuan Wang, Igor Poletaev

Teaching

Fall 2022	**Head Teaching Assistant**, CIS 3990 Introduction to Human-Computer Interaction Instructor: Danaë Metaxa (University of Pennsylvania)
Fall 2021	**Teaching Assistant**, CIS 5300 Computational Linguistics Instructor: Mark Yatskar (University of Pennsylvania)
Spring 2020 Spring 2019	**Teaching Assistant**, COMS 4705 Natural Language Processing Instructor: Michael Collins (Columbia University)
Fall 2019	**Teaching Assistant**, COMS 4705 Natural Language Processing Instructor: Kathleen McKeown (Columbia University)
Summer 2018	**Teaching Assistant**, Introduction to Java Instructor: Brandon Mazey (Columbia University Pre-college Programs)
Summer 2018	**Teaching Assistant**, Web Development in Python Instructor: Brandon Mazey (Columbia University Pre-college Programs)

Mentorship

Summer 2022	Juni Kim (Independent Study)
Spring 2022	Jasmine Chen (Undergraduate Thesis)

Service

May 2022 – Present	**Penn CIS PhD Mentorship Program** *Founder* Launch Mentorship Program for PhD students in the Department of Computer and Information Science at the University of Pennsylvania, where first- and second-years are matched with senior students and invited to monthly social events.
Sept 2020 – Present	**Computer and Information Science Doctoral Association (CISDA)** *Co-Chair* Lead group of elected students that advocates for student interests and liaises with faculty leaders of the Department of Computer and Information Science and School of Engineering and Applied Science.
Sept 2022 – May 2023	**Department of Computer and Information Science Office Committee** *PhD Representative* Coordinate seat assignments and other office logistics for CIS PhD students.
Sept 2021 – May 2022	**Penn Engineering Dean's Doctoral Advisory Board** *PhD Representative* Represent PhD students of the Department of Computer and Information Science at monthly meetings with Associate Dean for Graduate Programs Boon Thau Loo.
Sept – Dec 2021	**Penn NLP Computational Linguistics Lunch (CLunch)** *Co-organizer* Coordinate speakers for Computational Linguistics seminar series.
March – Oct 2021	**MindCORE *Di*versity and *E*quity *In*itiative (DivE In)** *Programming Development Committee Lead* Lead the Programming Development Committee and sit on Steering Committee for the inaugural DivE In, a fully funded weekend of workshops for undergraduate students from underrepresented communities who are interested in the mind sciences.
Sept – Dec 2020	**Penn CIS Applicant-Support Program** *Program Leader* Match PhD applicants from underrepresented communities with current Penn CIS PhD students for guidance throughout application process.

Outreach

Nov 2022	**MindCORE *Di*versity and *E*quity *In*itiative (DivE In)** *Invited Speaker*, Overview of the PhD Application Process
Nov 2021	**University of Pennsylvania School of Engineering and Applied Science** *Invited Panelist*, PhD Open House
March 2021	**ACM Capital Region Celebration of Women in Computing (CAPWIC)** *Invited Panelist*, Graduate School: Is It Right for Me?
Jan 2021	**University of Pennsylvania School of Engineering and Applied Science** *Invited Panelist*, Graduate Recruitment Panel
Nov 2020	**University of Pennsylvania School of Engineering and Applied Science** *Invited Panelist*, PhD Open House
Oct 2020	**Columbia University Department of Computer Science** *Invited Speaker*, Alumni-In-Residence Discussion