

Jenny T. Liang

✉ jtliang@cs.cmu.edu • 🌐 jennyliang.me • 🗣️ [liang-jenny](https://liang-jenny.github.io) • 🐦 [jennytliang](https://twitter.com/jennytliang)

Education

Carnegie Mellon University , Pittsburgh, PA, USA Ph.D. in Software Engineering Advisor: Brad A. Myers	2022 –
Carnegie Mellon University , Pittsburgh, PA, USA M.S. in Software Engineering	2022 – 2024
University of Washington , Seattle, WA, USA B.S. in Computer Science, B.S. in Informatics	2015 – 2021

Publications (* denotes equal contribution, [Google Scholar](#))

Conference Publications

[C12] **Particip-AI: Anticipating Future AI Use Cases and Impacts with Lay Users**

Jimin Mun, Liwei Jiang, [Jenny T. Liang](#), Inyoung Cheong, Nicole DeCario, Yejin Choi, Tadayoshi Kohno, Maarten Sap
AAAI/ACM Conference on Artificial Intelligence, Ethics and Society (AIES) 2024. Acceptance rate: 32% [\[PDF\]](#)

[C11] **Can GPT-4 Replicate Empirical Software Engineering Research?**

[Jenny T. Liang](#), Carmen Badea, Christian Bird, Robert DeLine, Denae Ford Robinson, Nicole Forsgren, Thomas Zimmermann
ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE) 2024. Acceptance rate: 25% [\[PDF\]](#)

[C10] **Counterspeakers' Perspectives: Unveiling Barriers and AI Needs in the Fight against Online Hate**

Jimin Mun, Cathy Buerger*, [Jenny T. Liang](#)*, Joshua Garland, Maarten Sap
ACM SIGCHI Conference on Human Factors in Computing Systems (CHI) 2024. Acceptance rate: 26% [\[PDF\]](#)

[C9] **A Large-Scale Survey on the Usability of AI Programming Assistants: Successes and Challenges**

[Jenny T. Liang](#), Chenyang Yang, Brad A. Myers
IEEE/ACM International Conference on Software Engineering (ICSE) 2024. Acceptance rate: 25% [\[PDF\]](#) [\[Data Skeptic Podcast\]](#)

[C8] **NLPositionality: Characterizing Design Biases of Datasets and Models**

Sebastin Santy*, [Jenny T. Liang](#)*, Ronan Le Bras, Katharina Reinecke, Maarten Sap
Annual Conference of the Association for Computational Linguistics (ACL) 2023. Acceptance rate: 24% [\[PDF\]](#)
[\[MarkTechPost\]](#) [\[CMU ML Blog\]](#)

🏆 **Outstanding Paper Award**

[C7] **Qualitative Study on the Implementation Design Decisions of Developers**

[Jenny T. Liang](#), Maryam Arab, Minhyuk Ko, Amy J. Ko, Thomas D. LaToza
IEEE/ACM International Conference on Software Engineering (ICSE) 2023. Acceptance rate: 26% [\[PDF\]](#) [\[IEEE Software\]](#)
[\[Scholarly Communication Podcast\]](#)

🏆 **ACM SIGSOFT Distinguished Paper Award**

[C6] **Understanding Skills of OSS Contributors on GitHub**

[Jenny T. Liang](#), Thomas Zimmermann, Denae Ford
ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE) 2022. Acceptance rate: 22% [\[PDF\]](#)

[C5] Towards Mining OSS Skills from GitHub Activity

Jenny T. Liang, Thomas Zimmermann, Denae Ford

IEEE/ACM International Conference on Software Engineering—New Ideas and Emerging Results (ICSE-NIER) 2022.

Acceptance rate: 27% [\[PDF\]](#)

[C4] An Exploratory Study of Sharing Strategic Programming Knowledge

Maryam Arab, Thomas D. LaToza, Jenny Liang, Amy J. Ko

ACM SIGCHI Conference on Human Factors in Computing Systems (CHI) 2022. Acceptance rate: 26% [\[PDF\]](#)

[C3] HowToo: A Platform for Sharing, Finding, and Using Programming Strategies

Maryam Arab, Jenny Liang*, Yang Yoo*, Amy J. Ko, Thomas D. LaToza

IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC) 2021. Acceptance rate: 30% [\[PDF\]](#)

[C2] Whale Watching in Inland Indonesia: Analyzing a Small, Remote, Internet-Based Community Cellular Network

Matthew Johnson, Jenny Liang, Michelle Lin, Sudheesh Singanamalla, Kurtis Heimerl

The Web Conference (WWW) 2021. Acceptance rate: 21% [\[PDF\]](#)

[C1] Experiences: Design, Implementation, and Deployment of CoLTE, a Community LTE Solution

Spencer Sevilla, Matthew Johnson, Pathirat Kosakanchit, Jenny Liang, Kurtis Heimerl

ACM International Conference on Mobile Computing and Networking (Mobicom) 2019. Acceptance rate: 19% [\[PDF\]](#)

Journal Articles

[J1] An Empirical Investigation of Machines’ Capabilities for Moral Judgment with the Delphi Experiment

Liwei Jiang, Jena D. Hwang, Chandra Bhagavatula*, Ronan Le Bras*, Jenny Liang*, Sydney Levine*, Jesse Dodge, Keisuke Sakaguchi, Maxwell Forbes, Taylor Sorenson, Jonathan Borchardt, Jack Hessel, Saadia Gabriel, Yulia Tsvetkov, Oren Etzioni, Maarten Sap, Regina Rini, Yejin Choi

Nature Machine Intelligence, 2024. Impact factor: 18.8 [\[PDF\]](#) [\[New York Times\]](#) [\[WIRED\]](#) [\[IEEE Spectrum\]](#) [\[Nature\]](#)

Other Refereed Publications (e.g., demos, posters, extended abstracts)

[O2] LLMs as Workers in Human-Computational Algorithms? Replicating Crowdsourcing Pipelines with LLMs

Tongshuang Wu, Haiyi Zhu, Maya Albayrak, Alexis Axon, Amanda Bertsch, Wenxing Deng, Ziqi Ding, Bill Guo, Sireesh Gururaja, Tzu-Sheng Kuo, Jenny T. Liang, Ryan Liu, Ihita Mandal, Jeremiah Milbauer, Xiaolin Ni, Namrata Padmanabhan, Subhashini Ramkumar, Alexis Sudjianto, Jordan Taylor, Ying-Jui Tseng, Patricia Vaidos, Zhijin Wu, Wei Wu, Chenyang Yang.

ACM SIGCHI Conference on Human Factors in Computing Systems (CHI) 2025, Case Studies in Practice. [\[PDF\]](#)

[O1] An All-in-One Community LTE Network

Spencer Sevilla, Matthew Johnson, Pathirat Kosakanchit, Jenny Liang, Kurtis Heimerl

ACM International Conference on Mobile Computing and Networking (Mobicom) 2019, Demo Track. [\[PDF\]](#)

Pre-Prints

[P2] TableTalk: Conversationally Developing Spreadsheets with a Language Agent

Jenny T. Liang, Aayush Kumar, Yasharth Bajpai, Sumit Gulwani, Vu Le, Emerson Murphy-Hill, Chris Parnin, Arjun Radhakrishna, Gustavo Soares, Ashish Tiwari

[P1] Prompts Are Programs Too! Understanding How Developers Build Software Containing Prompts

Jenny T. Liang, Melissa Lin*, Nikitha Rao*, Brad A. Myers

[\[PDF\]](#)

Research Experience

Carnegie Mellon University, Software & Societal Systems Department

Graduate Research Assistant, advised by Brad A. Myers

2022 –

Microsoft Research , Program Synthesis Using Examples (PROSE) Team <i>Applied Scientist Intern</i> , advised by Gustavo Soares	Summer 2024
Microsoft Research , Software Analysis & Intelligence (SAINTES) Group <i>Research Intern</i> , advised by Thomas Zimmermann, Christian Bird, Carmen Badea, Denae Ford Robinson, Robert DeLine, & Nicole Forsgren	Summer 2023
Allen Institute for Artificial Intelligence , Mosaic Team <i>Predoctoral Young Investigator</i> , advised by Ronan Le Bras & Yejin Choi	2021 – 2022
University of Washington , Information School, Code & Cognition Lab <i>Undergraduate Research Assistant</i> , advised by Amy J. Ko	2020 – 2021
Microsoft Research , Software Analysis & Intelligence (SAINTES) Group <i>Undergraduate Research Intern</i> , advised by Denae Ford Robinson & Thomas Zimmermann	Spring 2021
Allen Institute for Artificial Intelligence , Mosaic Team <i>Undergraduate Research Intern</i> , advised by Swabha Swayamdipta, Chandra Bhagavatula, & Yejin Choi	2020 – 2021
University of Washington , Computer Science & Engineering, Information and Communication Technology for Development (ICTD) Lab <i>Undergraduate Research Assistant</i> , advised by Spencer Sevilla & Kurtis Heimerl	2019 – 2020

Awards & Honors

Outstanding Paper Award , Annual Conference of the Association for Computational Linguistics 2023. <i>Awarded to less than 2% of accepted papers / 0.5% of submitted papers.</i>	2023
ACM SIGSOFT Distinguished Paper Award , IEEE/ACM International Conference on Software Engineering 2023. <i>Awarded to less than 5% of accepted papers / 1% of submitted papers.</i>	2023
Ford Fellow Honorable Mention , Ford Foundation	2023
Graduate Research Fellow , National Science Foundation (\$111,000 over 3 years)	2021
Outstanding Undergraduate Researcher Honorable Mention , Computing Research Association	2021
Undergraduate Service Award , University of Washington, Computer Science & Engineering. <i>Award to recognize 3 UW CSE undergraduates out of 2,000 students for their outstanding service to the department.</i>	2020
Husky 100 , University of Washington. <i>Award to recognize 100 UW students out of 55,000 students in honor of their outstanding contributions to the university.</i>	2020
Outstanding Engineer Award , Allen Institute for Artificial Intelligence (\$12,000)	2020
Denice Dee Denton Scholar (\$1,000)	2019

Invited Talks

Software Development in the Era of LLMs: Present and Future <i>JetBrains Research</i> , Online	Sep 2024
Software Development in the Era of LLMs: Present and Future <i>Microsoft</i> , Online	Jul 2024

Selected Press

Scholarly Communication Podcast , “Define Clearly, Select Carefully, End Compellingly” [HTML]	Jan 2025
CMU ML Blog , “NLPositionality: Characterizing Design Biases of Datasets and Models” [HTML]	Mar 2024
IEEE Software , “Focusing on Developers in the Era of AI and ML” [HTML]	Nov 2023
Data Skeptic Podcast , “A Survey Assessing Github Copilot” [HTML]	Nov 2023
IEEE Spectrum , “Machines Learn Good From Commonsense Norm Bank” [HTML]	Nov 2021
New York Times , “Can a Machine Learn Morality?” [HTML]	Nov 2021
Nature , “How robots can learn to follow a moral code” [HTML]	Oct 2021
WIRED , “This Program Can Give AI a Sense of Ethics—Sometimes.” [HTML]	Oct 2021

Teaching

Guest Lectures

Human Aspects of AI-Assisted Software Engineering , North Carolina State University <i>Generative AI for Software Engineering, CSC 791-028</i>	Oct 2023
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Teaching Assistantships

Graduate Teaching Assistant , Carnegie Mellon University, Software & Societal Systems Department <i>Foundations of Software Engineering, 17-313</i> . Instructors: Michael Hilton, Eduardo Feo-Flushing	Spring 2024
Undergraduate Teaching Assistant , University of Washington, Computer Science & Engineering <i>Building Academic Success through Bottom-Up Computing (Introduction to Computer Systems), CSE 390B</i> . Instructors: Dan Grossman, Aaron Johnston, Leslie Ikeda	Spring 2020
Undergraduate Teaching Assistant , University of Washington, Computer Science & Engineering <i>Software Design & Implementation, CSE 331</i> . Instructor: Hal Perkins	Winter 2020
Undergraduate Teaching Assistant , University of Washington, Computer Science & Engineering <i>Software Design & Implementation, CSE 331</i> . Instructor: Dan Grossman	Fall 2019
Undergraduate Teaching Assistant , University of Washington, Computer Science & Engineering <i>Introduction to Programming II, CSE 143</i> . Instructor: Hunter Schafer	Winter 2019
Undergraduate Teaching Assistant , University of Washington, Computer Science & Engineering <i>Accelerated Introduction to Programming, CSE 143X</i> . Instructor: Stuart Reges	Fall 2018
Undergraduate Teaching Assistant , University of Washington, Computer Science & Engineering <i>Introduction to Programming II, CSE 143</i> . Instructor: Stuart Reges	Spring 2018

Service

PC Member	CHASE (2025), ICSE Artifact Track (2025), ICLR Bi-Align Workshop (2025)
Organizer	<i>ArXiv Track Co-Chair</i> , ACM AIware (2025) <i>Publicity & Web Chair</i> , ACM AIware (2024) <i>Student Organizer</i> , PLATEAU (2024, 2025)
Reviewer	CACM (2025), EMSE (2024), TOSEM (2024), TSE (2025), UIST (2024), CHI (2024, 2025)
Sub-reviewer	FAccT (2023)
Volunteer	ESEC/FSE (2024), NAACL (2022), Mobicom (2019)
Student Leader (Ph.D.)	<i>Student Representative</i> , CMU S3D Ph.D. Admissions Committee (2025) <i>Student Representative</i> , CMU S3D Distinguished Speaker Series Selection Committee (2022, 2023, 2024) <i>Student Representative</i> , CMU Software Engineering Ph.D. Curriculum Committee (2022, 2023) <i>Student Representative</i> , CMU S3D Software Research Seminar Steering Committee (2022, 2023) <i>Student Representative</i> , CMU SCS Dean's Advisory Committee (2022)
Student Leader (Undergrad)	<i>Member</i> , UW CSE Student Advisory Council (2021) <i>Undergraduate Research Leader</i> , UW Undergraduate Research Program (2021) <i>Vice Chair</i> , UW CSE Student Advisory Council (2020) <i>Officer</i> , UW CSE Student Advisory Council (2019)

Industry Experience

Uber , Developer Experience, Software Engineer Intern	Fall 2019
Apple , Mail Team, Software Engineer Intern	Summer 2019
Microsoft , Personal Bing, Software Engineer Intern	Spring 2019
Microsoft , Exchange Enterprise Cloud, Software Engineer Intern	Summer 2018
Microsoft , Workplace Analytics, Software Engineer Intern	Summer 2017
Microsoft , Office 365, Intern	Summer 2016