

Jenny T. Liang

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Education

Carnegie Mellon University, Pittsburgh, PA, USA
Ph.D. in Software Engineering
Advisor: Brad A. Myers

2022 –

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% [\[PDF\]](#)

[\[MarkTechPost\]](#)

🏆 *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% [\[PDF\]](#) [\[IEEE Software\]](#)

🏆 *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

[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

2022 –

Graduate Research Assistant, advised by Brad A. Myers

Microsoft Research, Program Synthesis Using Examples (PROSE) Team

Summer 2024

Applied Scientist Intern, advised by Gustavo Soares

Microsoft Research, Software Analysis & Intelligence (SAINTES) Group

Summer 2023

Research Intern, advised by Thomas Zimmermann, Christian Bird, Carmen Badea, Denae Ford Robinson, Robert DeLine, & Nicole Forsgren

Allen Institute for Artificial Intelligence , Mosaic Team <i>Predctoral 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

Presentations

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

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)
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	CHI (2024, 2025), EMSE (2024), UIST (2024), TOSEM (2024)
Sub-reviewer	FAccT (2023)
Volunteer	ESEC/FSE (2024), NAACL (2022), Mobicom (2019)

Student Leader (Ph.D.)	<i>Student Representative, CMU S3D Ph.D. Admissions Committee (2025)</i> <i>Student Representative, CMU S3D Distinguished Speaker Series Selection Committee (2022, 2023, 2024)</i> <i>Student Representative, CMU Software Engineering Ph.D. Curriculum Committee (2022, 2023)</i> <i>Student Representative, CMU S3D Software Research Seminar Steering Committee (2022, 2023)</i> <i>Student Representative, CMU SCS Dean's Advisory Committee (2022)</i>
Student Leader (Undergrad)	<i>Member, UW CSE Student Advisory Council (2021)</i> <i>Undergraduate Research Leader, UW Undergraduate Research Program (2021)</i> <i>Vice Chair, UW CSE Student Advisory Council (2020)</i> <i>Officer, UW CSE Student Advisory Council (2019)</i>

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