Jenny T. Liang

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Education

2022 –	**Carnegie Mellon University**, Pittsburgh, PA, USA Ph.D. in Software Engineering
2015 – 2021	**University of Washington**, Seattle, WA, USA B.S. in Computer Science, B.S. in Informatics

Publications (* denotes equal contribution, ⑧ Google Scholar)

Conference Publications

[C-12] **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.

[C-11] **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. [PDF]

[C-10] **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. [PDF]

[C-9] **A Large-Scale Survey on the Usability of AI Programming Assistants: Successes and Challenges |** Data Skeptic Podcast
Jenny T. Liang, Chenyang Yang, Brad A. Myers
IEEE/ACM International Conference on Software Engineering (ICSE) 2024. [PDF]

[C-8] **NLPositionality: Characterizing Design Biases of Datasets and Models** | MarkTechPost
Sebastin Santy*, Jenny T. Liang*, Ronan Le Bras, Katharina Reinecke, Maarten Sap
Annual Conference of the Association for Computational Linguistics (ACL) 2023. [PDF]
🏆 *Outstanding Paper Award*

[C-7] **A Qualitative Study on the Implementation Design Decisions of Developers** | IEEE Software
Jenny T. Liang, Maryam Arab, Minhyuk Ko, Amy J. Ko, Thomas D. LaToza
IEEE/ACM International Conference on Software Engineering (ICSE) 2023. [PDF]
🏆 *ACM SIGSOFT Distinguished Paper Award*

[C-6] **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. [PDF]

[C-5] **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. [PDF]

[C-4] **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. [PDF]

[C-3] **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. [PDF]

[C-2] **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. [PDF]

[C-1] **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. [PDF]

Other Refereed Publications (e.g., demos, posters)
[O-1] **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. [PDF]

Pre-Prints
[P-3] **Prompts Are Programs Too! Understanding How Developers Build Software Containing Prompts**
Jenny T. Liang, Melissa Lin*, Nikitha Rao*, Brad A. Myers
[PDF]

[P-2] **Delphi: Towards Machine Ethics and Norms** | New York Times | WIRED | IEEE Spectrum | Nature
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.
[PDF]

[P-1] **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.
[PDF]

Research Experience

2022 –	**Carnegie Mellon University,** Software & Societal Systems Department *Graduate Research Assistant*, advised by Brad A. Myers
Summer 2024	**Microsoft Research**, Program Synthesis Using Examples (PROSE) Team *Applied Scientist Intern*, advised by Gustavo Soares
Summer 2023	**Microsoft Research,** Software Analysis & Intelligence (SAINTES) Group *Research Intern*, advised by Thomas Zimmermann, Christian Bird, Carmen Badea, Denae Ford Robinson, Robert DeLine, & Nicole Forsgren

2021 – 2022	**Allen Institute for Artificial Intelligence**, Mosaic Team *Predoctoral Young Investigator*, advised by Ronan Le Bras & Yejin Choi
2020 – 2021	**University of Washington,** Information School, Code & Cognition Lab *Undergraduate Research Assistant*, advised by Amy J. Ko
Spring 2021	**Microsoft Research,** Software Analysis & Intelligence (SAINTES) Group *Undergraduate Research Intern*, advised by Denae Ford Robinson & Thomas Zimmermann
2020 – 2021	**Allen Institute for Artificial Intelligence**, Mosaic Team *Undergraduate Research Intern*, advised by Swabha Swayamdipta, Chandra Bhagavatula, & Yejin Choi
2019 – 2020	**University of Washington**, Computer Science & Engineering, Information and Communication Technology for Development (ICTD) Lab *Undergraduate Research Assistant*, advised by Spencer Sevilla & Kurtis Heimerl

Awards & Honors

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

Presentations

Sep 2024	**Interactive Spreadsheet Building: Understanding User Needs and Experiences with AI Creation Tools** *Microsoft*, Online
Sep 2024	**Software Development in the Era of LLMs: Present and Future** *JetBrains Research,* Online
Jul 2024	**Software Development in the Era of LLMs: Present and Future** *Microsoft,* Online
Sep 2021	**Understanding Skills for OSS Communities** *Microsoft Research*, Redmond, WA, USA

May 2021	**Interpreting Hate Speech Classifiers: Does Dataset Label Space Matter?** *UW Undergraduate Research Symposium*, Seattle, WA, USA
May 2020	**Explicit Programming Strategies** *UW Undergraduate Research Symposium*, Seattle, WA, USA
May 2022	**Towards Mining OSS Skills from GitHub Activity** (Poster) *IEEE/ACM International Conference on Software Engineering (ICSE) 2022*, Pittsburgh, PA, USA
Oct 2019	**An All–in–One Community LTE Network** (Demo) *ACM International Conference on Mobile Computing and Networking (Mobicom) 2019*, Los Cabos, Mexico

Selected Press

Nov 2023	**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 2021	**IEEE Spectrum**, "Machines Learn Good From Commonsense Norm Bank" [HTML]
Nov 2021	**New York Times,** "Can a Machine Learn Morality?" [HTML]
Oct 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]

Teaching

	Guest Lectures
Oct 2023	**Human Aspects of AI-Assisted Software Engineering**, North Carolina State University *Generative AI for Software Engineering, CSC 791-028.*
	Teaching Assistantships
Spring 2024	**Graduate Teaching Assistant,** Carnegie Mellon University, Software & Societal Systems Department *Foundations of Software Engineering, 17-313.* Instructors: Michael Hilton, Eduardo Feo-Flushing
Spring 2020	**Undergraduate Teaching Assistant,** University of Washington, Computer Science & Engineering *Building Academic Success through Bottom–Up Computing (Introduction to Computer Systems), CSE 390B.* Instructors: Dan Grossman, Aaron Johnston, Leslie Ikeda
Winter 2020	**Undergraduate Teaching Assistant,** University of Washington, Computer Science & Engineering *Software Design & Implementation, CSE 331.* Instructor: Hal Perkins
Fall 2019	**Undergraduate Teaching Assistant,** University of Washington, Computer Science & Engineering *Software Design & Implementation, CSE 331.* Instructor: Dan Grossman
Winter 2019	**Undergraduate Teaching Assistant,** University of Washington, Computer Science & Engineering *Introduction to Programming II, CSE 143.* Instructor: Hunter Schafer
Fall 2018	**Undergraduate Teaching Assistant,** University of Washington, Computer Science & Engineering

Accelerated Introduction to Programming, CSE 143X. Instructor: Stuart Reges

Spring 2018   **Undergraduate Teaching Assistant,** University of Washington, Computer Science & Engineering
Introduction to Programming II, CSE 143. Instructor: Stuart Reges

Service

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

Industry Experience

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