

Jenny T. Liang

Ph.D. Student, School of Computer Science, Carnegie Mellon University

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Education

- 2022 – **Carnegie Mellon University**, Pittsburgh, PA, USA
Ph.D. in Software Engineering (GPA: 4.00)
- 2015 – 2021 **University of Washington**, Seattle, WA, USA
B.S. in Computer Science, B.S. in Informatics (GPA: 3.77)

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

Conference Publications

- [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**
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-2] **Delphi: Towards Machine Ethics and Norms** | [New York Times](#) | [WIRED](#) | [IEEE Spectrum](#)
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)

Presentations

- 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 **WIRED**, “This Program Can Give AI a Sense of Ethics—Sometimes.” [\[HTML\]](#)

Teaching

- Oct 2023 **Guest Lectures**
Human Aspects of AI-Assisted Software Engineering, North Carolina State University
Generative AI for Software Engineering, CSC 791-028.
- Spring 2024 **Teaching Assistantships**
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

- Reviewer CHI (2024), EMSE (2024), UIST (2024)
- Sub-reviewer FAccT (2023)
- Organizer *Student Organizer*, PLATEAU (2024)
Publicity & Web Chair, ACM AIware (2024)
- Volunteer NAACL (2022), Mobicom (2019)
- Student Leader *Student Representative*, CMU Software Engineering Ph.D. Curriculum Committee (2022, 2023)
Student Representative, CMU S3D Distinguished Speaker Series Selection Committee (2022, 2023, 2024)
Member, CMU S3D Software Research Seminar Steering Committee (2022, 2023)
Member, CMU SCS Dean's Advisory Committee (2022)
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