Jenny T. Liang

Ph.D. Student

Carnegie Mellon University
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Software and Societal Systems Department

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I research ways to make programming better for everyone by studying developers and programming communities as well as designing intelligent tools that make building software easier.

Education

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

Research Experience

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

Awards & Honors

National Science Foundation Graduate Research Fellow ($111,000 over 3 years)	2021
Computing Research Association Outstanding Undergraduate Researcher Honorable Mention	2020
University of Washington Computer Science & Engineering Undergraduate Service Award Award to recognize 3 UW CSE undergraduates out of 2,000 students for their outstanding service to the department.	2020
Husky 100 Award to recognize 100 UW students out of 55,000 students in honor of their outstanding contributions to the university.	2020
Allen Institute of Artificial Intelligence Outstanding Engineer ($12,000)	2019
Denice Dee Denton Scholarship ($1,000) Departmental scholarship for students who show a commitment to a diverse student population.	2019

UW Academy Scholar 2015
Early entrance to the University of Washington at 16 years old.

Funding

SIGSOFT CAPS Travel Grant for ESEC/FSE 2022 ($1,000) 2022

NSF Student & Early-Career Faculty Travel Grant for ICSE 2022 ($1,075) 2022

UW CSE Travel Award for SIGCSE 2020 ($500) 2020

N2Women Travel Grant for Mobicom 2019 ($1,200) 2019

UW CSE Travel Award for Grace Hopper Conference 2019 ($1,200) 2019

# Peer-Reviewed Publications (* denotes equal contribution)

Understanding Skills of OSS Contributors on GitHub
J.T. Liang, T. Zimmermann, D. Ford
ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE) 2022

Towards Mining OSS Skills from GitHub Activity
J.T. Liang, T. Zimmermann, D. Ford
IEEE/ACM International Conference on Software Engineering—New Ideas and Emerging Results (ICSE-NIER) 2022

An Exploratory Study of Sharing Strategic Programming Knowledge
M. Arab, T.D. LaToza, J. Liang, A.J. Ko
ACM SIGCHI Conference on Human Factors in Computing Systems (CHI) 2022

HowToo: A Platform for Sharing, Finding, and Using Programming Strategies
M. Arab, J. Liang*, Y.K. Yoo*, A.J. Ko, T.D. LaToza
Visual Languages and Human-Centric Computing (VL/HCC) 2021

Whale Watching in Inland Indonesia: Analyzing a Small, Remote, Internet-Based Community Cellular Network
M. Johnson, J. Liang, M. Lin, S. Singanamalla, K. Heimerl
The Web Conference (WWW) 2021

Experiences: Design, Implementation, and Deployment of CoLTE, a Community LTE Solution
S. Sevilla, M. Johnson, P. Kosakanchit, J. Liang, K. Heimerl
ACM International Conference on Mobile Computing and Networking (Mobicom) 2019

An All-in-One Community LTE Network
S. Sevilla, M. Johnson, P. Kosakanchit, J. Liang, K. Heimerl
ACM International Conference on Mobile Computing and Networking (Mobicom) 2019

Preprints

How Do Software Engineers Make Implementation Decisions?
J.T. Liang, M. Arab, M. Ko, A.J. Ko, T.D. LaToza
Under submission.

Delphi: Towards Machine Ethics and Norms
L. Jiang, J.D. Hwang, C. Bhagavatula, R. Le Bras, M. Forbes, J. Borchardt, J. Liang, O. Etzioni, M. Sap, Y. Choi
Under submission. arXiv preprint arXiv:2110.07574.

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Invited Talks

Towards Mining OSS Skills from GitHub Activity (Poster)   05/2022
IEEE/ACM International Conference on Software Engineering 2022, Pittsburgh, PA, USA.

Understanding Skills for OSS Communities (Talk)   09/2021
Microsoft Research, Redmond, WA, USA.

Interpreting Hate Speech Classifiers: Does dataset label space matter? (Talk)   05/2021
UW Undergraduate Research Symposium, Seattle, WA, USA.

Explicit Programming Strategies (Talk)   05/2020
UW Undergraduate Research Symposium, Seattle, WA, USA.

An All-in-One Community LTE Network (Demo)   09/2019
ACM International Conference on Mobile Computing and Networking 2019, Los Cabos, Mexico.

Selected Press

WIRED. "This Program Can Give AI a Sense of Ethics—Sometimes."   10/2021

New York Times. "Can a Machine Learn Morality?"   11/2021

Teaching

Undergraduate Teaching Assistant, University of Washington, Computer Science & Engineering   2018 - 2020

Building Academic Success through Bottom-Up Computing (Introduction to Computer Systems), CSE 391B.
(Sp 2020)
Software Design & Implementation, CSE 331. (Au 2019, Wi 2020)
Accelerated Introduction to Programming, CSE 143X. (Au 2018)
Introduction to Programming II, CSE 143. (Sp 2018, Wi 2019, Sp 2019)

Service

Student Leader, Carnegie Mellon University, School of Computer Science   2022

Student Representative, CMU Software Engineering Ph.D. Curriculum Committee (2022)
Student Representative, CMU S3D Distinguished Speakers Series Selection Committee (2022)
Member, CMU S3D Software Research Seminar Steering Committee (2022)
Member, CMU SCS Dean's Advisory Committee (2022)

Conference Volunteer   2019 - 2022

Student Volunteer, NAACL (2022)
Student Volunteer, Mobicom (2019)

Student Leader, University of Washington, Computer Science & Engineering   2019 - 2021

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

Uber, Developer Experience, Software Engineer Intern   2019

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Apple, Mail Team, Software Engineer Intern   2019

Microsoft, Personal Bing, Software Engineer Intern   2019

Microsoft, Exchange Enterprise Cloud, Software Engineer Intern   2018

Microsoft, Workplace Analytics, Software Engineer Intern   2017

Microsoft, Office 365, Intern   2016