Carnegie Mellon University School of Computer Science Institute for Software Research Ph.D. Student

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

### Education

2021 -	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 (GPA: 3.77)
UW Academy Scholar (UW early entrance at 16 years old)

# Research Experience

07/2021 -	Allen Institute of Artificial Intelligence, Mosaic Team Predoctoral Young Investigator, advised by Ronan Le Bras and Yejin Choi
01/2020 -	University of Washington, Information School, Code & Cognition Lab Undergraduate Research Assistant, advised by Amy J. Ko
04/2021 - 07/2021	Microsoft Research, Software Analysis and Intelligence (SAINTES) Group Undergraduate Research Intern, advised by Denae Ford Robinson and Thomas Zimmermann
06/2020 - 04/2021	Allen Institute of Artificial Intelligence, Mosaic Team Undergraduate Research Intern, advised by Swabha Swayamdipta, Chandra Bhagavatula, and Yejin Choi
01/2019 - 06/2020	University of Washington, Computer Science & Engineering, Information and Communication Technology for Development (ICTD) Lab Undergraduate Research Assistant, advised by Spencer Sevilla and Kurtis Heimerl

### Awards & Honors

2021	National Science Foundation Graduate Research Fellow (\$138,000 over 3 years)
2020	Computing Research Association Outstanding Undergraduate Researcher Honorable Mention
2020	UW Computer Science & Engineering Undergraduate Service Award
2020	Husky 100 Award to recognize 100 UW students out of 55,000 students in honor of their outstanding contributions to the university.
2019	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.

### **Funding**

- 2022 IEEE/ACM International Conference on Software Engineering Student Mentoring Workshop **Participant** (\$1,075)
- 2020 UW CSE SIGCSE Travel Award (\$500)
- 2019 **N2Women Mobicom Travel Grant** (\$1,200)
- 2019 *UW CSE Grace Hopper Conference Travel Award (\$1,200)*

#### Peer-Reviewed Publications

\* denotes equal contribution

#### 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.

#### 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.

#### HowToo: A Platform for Sharing, Finding, and Using Programming Strategies.

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

Visual Languages and Human-Centric Computing (VL/HCC) 2021.

#### 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.

#### 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.

#### 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.

### **Pre-Prints**

#### Understanding Skills of OSS Contributors on GitHub.

Jenny T. Liang, Thomas Zimmermann, Denae Ford. 2022.

Under submission.

#### Delphi: Towards Machine Ethics and Norms.

Liwei Jiang, Jena D. Hwang, Chandra Bhagavatula, Ronan Le Bras, Maxwell Forbes, Jon Borchardt, Jenny Liang,

Oren Etzioni, Maarten Sap, Yejin Choi. 2022.

Under submission. arXiv preprint arXiv:2110.07574.

### Invited Talks

#### 05/2022 Towards Mining OSS Skills from GitHub Activity. (Poster)

IEEE/ACM International Conference on Software Engineering 2022, Pittsburgh, PA, USA.

09/2021	<b>Understanding Skills for OSS Communities</b> ( <i>Talk</i> ) Microsoft Research, Redmond, WA, USA.
05/2021	Interpreting Hate Speech Classifiers: Does dataset label space matter? (Talk) UW Undergraduate Research Symposium, Seattle, WA, USA.
05/2020	Explicit Programming Strategies (Talk) UW Undergraduate Research Symposium, Seattle, WA, USA.
09/2019	An All-in-One Community LTE Network (Demo) ACM International Conference on Mobile Computing and Networking 2019, Los Cabos, Mexico.

# **Selected Press**

10/2021 <b>WIRED.</b> "This Program Can Give AI a Sense of Ethics—Sometimes."
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11/2021 New York Times. "Can a Machine Learn Morality?"

# **Teaching**

Undergrad.	Building Academic Success through Bottom-Up Computing (Intro. to Computer Systems), CSE 391B.
Teaching	<i>Sp 2020.</i>

Assistant Software Design & Implementation, CSE 331. Au 2020, Wi 2020
Accelerated Introduction to Programming, CSE 143X. Au 2018.
Introduction to Programming II, CSE 143. Sp 2018, Wi 2019, Sp 2019.

### Service

Chair	<i>UW CSE Student Advisory Council</i> (2019) Advocating for computer science students' needs and perspectives to faculty, staff, and administrators.
Officer	UW CSE Student Advisory Council (2018)
Student Volunteer	UW Undergraduate Research Program (2020), UW CSE Student Advisory Council (2020)

# **Industry Experience**

2019	<b>Uber</b> , Developer Experience, Software Engineer Intern
2019	Apple, Mail Team, Software Engineer Intern
2019	Microsoft, Personal Bing, Software Engineer Intern
2018	Microsoft, Exchange Enterprise Cloud, Software Engineer Intern
2017	Microsoft, Workplace Analytics, Software Engineer Intern
2016	Microsoft, Office 365. Intern