

Steve Oney

School of Information
University of Michigan
4552 Leinweber Building
2200 Hayward Street
Ann Arbor, MI 48109

Latest CV: from.so/me/cv
Updated August 2026
<https://from.so/me>
1 (734) 999-0246
sony@umich.edu

Education

- 09/2008 – 04/2015 **Carnegie Mellon University**
Pittsburgh, PA PhD in Human-Computer Interaction
MS in Human-Computer Interaction
Advisors: Brad Myers and Joel Brandt
Committee: Scott Hudson and John Zimmerman
- 09/2003 – 08/2008 **Massachusetts Institute of Technology**
Cambridge, MA MEng in Computer Science
SB in Computer Science
SB in Mathematics

Professional Experience

- 09/2022 – present **School of Information, University of Michigan**
Ann Arbor, MI Associate Professor
- 09/2022 – present **Computer Science and Engineering, University of Michigan**
Ann Arbor, MI Associate Professor (by courtesy)
- 09/2016 – 09/2022 **School of Information, University of Michigan**
Ann Arbor, MI Assistant Professor
- 01/2017 – 09/2022 **Computer Science and Engineering, University of Michigan**
Ann Arbor, MI Assistant Professor (by courtesy)
- 09/2015 – 09/2016 **School of Information, University of Michigan**
Ann Arbor, MI Presidents Post-Doctoral Fellow
- 09/2008 – 04/2015 **Carnegie Mellon University (Human-Computer Interaction Institute)**
Pittsburgh, PA Graduate student and researcher
- 03/2013 – 06/2013 **Advanced Technologies Labs, Adobe Systems**
San Francisco, CA Research Intern
- 06/2011 – 09/2011 **Advanced Technologies Labs, Adobe Systems**
San Francisco, CA Research Intern

05/2009 – 08/2009 **IBM Research, Almaden, Research Intern**
San Jose, CA Research Intern

01/2007 – 08/2008 **MIT Media Lab, Cognitive Machines Group**
Cambridge, MA Researcher (M.Eng)

Publications

Labels: 🏆 Best Paper Award, 🏅 Honorable Mention or other recognition

Approximate acceptance rates: UIST: 22%, CHI: 23%, VL/HCC: 30%, CSCW: 25%, ICSE: 19%, IMX: 26%

Heavily-reviewed Journal Manuscripts (J) and Conference Papers (C)

- C.47 Ashley Zhang, Yan-Ru Jhou, Yinuo Yang, Shamita Rao, Maryam Arab, Yan Chen, (PDF) and **Steve Oney**. (2026) Editrail: Understanding AI Usage by Visualizing Student-AI Interaction in Code. The ACM Symposium on User Interface Software and Technology (UIST). Detroit, MI, USA.
- C.46 Ashley Zhang, Yan-Ru Jhou, Yinuo Yang, Shamita Rao, Maryam Arab, Yan Chen, (PDF) and **Steve Oney**. (2026) CodeStream: Augmenting Timelines with Code Annotation for Navigating Large Coding Histories. The ACM CHI Conference on Human Factors in Computing Systems (CHI). Barcelona, Spain.
- J.45 Maryam Arab, Jenny Liang, Valentina Hong, **Steve Oney**, and Thomas LaToza. (2026) Navigating Complexity: How Context Shapes Debugging Strategy Choices Among Expert Developers. IEEE Transactions on Software Engineering (TSE).
- C.44 Maryam Arab, Hanning Li, Rushal Butala, and **Steve Oney**. (2025) Co-Advisor: (PDF) Learning Programming Strategies in Context. IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC). Raleigh, NC, USA.
- C.43 Ashley Zhang, Victor Bursztyn, Gromit Chan, Shunan Guo, Eunye Koh, **Steve Oney**, and Jane Hoffswell. (2025) ConvoMap: Interactive Visualizations for Exploring Complex Conversations in Multi-Agent Systems. IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC). Raleigh, NC, USA.
- 🏅 C.42 Yinuo Yang, Ashley Zhang, **Steve Oney**, and April Wang. (2025) SPARK: Real-Time (PDF) Monitoring of Multi-Faceted Programming Exercises. IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC). Raleigh, NC, USA.
- C.41 Jiacheng Zhang, Jiawen Li, Maryam Arab, and **Steve Oney**. (2025) Multi-Click: (PDF) Cross-Tab Web Automation via Action Generalization. The ACM Symposium on User Interface Software and Technology (UIST). Busan, Korea.
- C.40 Lei Zhang, Jin Pan, Jacob Gettig, **Steve Oney**, and Anhong Guo. (2024) VRCopilot: (PDF) Authoring 3D Layouts with Generative Models in VR. The ACM Symposium on User Interface Software and Technology (UIST). Pittsburgh, PA, USA.
- C.39 Rebecca Krosnick and **Steve Oney**. (2024) ScrapeViz: Hierarchical Representations (PDF) for Web Scraping Macros. IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC). Liverpool, UK.

- 🔗 C.38 Ashley Zhang, Xiaohang Tang, **Steve Oney**, and Yan Chen. (2024) CFlow: (PDF) Supporting Semantic Flow Analysis of Students' Code in Programming Problems at Scale. ACM Conference on Learning @ Scale (L@S). Atlanta, GA.
- C.37 Mauli Pandey, **Steve Oney**, and Andrew Begel. (2024) Towards Inclusive Source (PDF) Code Readability Based on the Preferences of Programmers with Visual Impairments. The ACM CHI Conference on Human Factors in Computing Systems (CHI). Honolulu, Hawai'i.
- C.36 Ashley Zhang, Yan Chen, and **Steve Oney**. (2023) RunEx: Augmenting Regular- (PDF) Expression Code Search with Runtime Values. IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC). Washington, D.C..
- 🔗 C.35 April Wang, Andrew Head, Ashley Zhang, **Steve Oney**, and Christopher Brooks. (PDF) (2023) Colaroid: A Literate Programming Approach for Authoring Explorable Multi-Stage Tutorials. The ACM CHI Conference on Human Factors in Computing Systems (CHI). Hamburg, Germany.
- 🔗 C.34 Ashley Zhang, Yan Chen, and **Steve Oney**. (2023) VizProg: Identifying (PDF) Misunderstandings by Visualizing Students' Coding Progress. The ACM CHI Conference on Human Factors in Computing Systems (CHI). Hamburg, Germany.
- C.33 Lei Zhang, Ashutosh Agrawal, **Steve Oney**, and Anhong Guo. (2023) VRGit: A (PDF) Version Control System for Collaborative Content Creation in Virtual Reality. The ACM CHI Conference on Human Factors in Computing Systems (CHI). Hamburg, Germany.
- C.32 Mauli Pandey, Sharvari Bondre, Sile O'Modhrain, and **Steve Oney**. (2022) (PDF) Accessibility of UI Frameworks and Libraries for Programmers with Visual Impairments. IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC). Rome, Italy.
- C.31 Rebecca Krosnick and **Steve Oney**. (2022) ParamMacros: Creating UI Automation (PDF) Leveraging End-User Natural Language Parameterization. IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC). Rome, Italy.
- J.30 April Wang, Yan Chen, John Chung, Christopher Brooks, and **Steve Oney**. (2021) (PDF) PuzzleMe: Leveraging Peer Assessment for In-Class Programming Exercises. The ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW). Toronto, Canada.
- 🔗*J.29 Mauli Pandey, Vaishnav Kameswaran, Hrishikesh Rao, Sile O'Modhrain, and **Steve Oney**. (2021) (PDF) Understanding Accessibility and Collaboration in Programming for People with Visual Impairments. The ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW). Toronto, Canada.
* Recognition for Contribution to Diversity and Inclusion
- C.28 Rebecca Krosnick and **Steve Oney**. (2021) Understanding the Challenges and (PDF) Needs of Programmers Writing Web Automation Scripts. IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC). (Virtual/Online).

- C.27 Yan Chen, Sang Won Lee, and **Steve Oney**. (2021) CoCapture: Effectively
(PDF) Communicating UI Behaviors on Existing Websites by Demonstrating and
Remixing. ACM Conference on Human Factors in Computing Systems (CHI).
(Virtual/Online).
- C.26 Rebecca Krosnick, Fraser Anderson, Justin Matejka, **Steve Oney**, Walter Lasecki,
(PDF) Tovi Grossman, and George Fitzmaurice. (2021) Think-Aloud Computing:
Supporting Rich and Low-Effort Knowledge Capture. ACM Conference on Human
Factors in Computing Systems (CHI). (Virtual/Online).
- C.25 Lei Zhang and **Steve Oney**. (2020) FlowMatic: An Immersive Authoring Tool for
(PDF) Creating Interactive Scenes in Virtual Reality. The ACM Symposium on User
Interface Software and Technology (UIST). Minneapolis, MN, USA.
- C.24 Yan Chen, Jaylin Herskovitz, Walter Lasecki, and **Steve Oney**. (2020) A Hybrid
(PDF) Crowd-Machine Workflow for Program Synthesis. IEEE Symposium on Visual
Languages and Human-Centric Computing (VL/HCC). Dunedin, New Zealand.
- 🔗* C.23 Yan Chen, Gabriel Matute, April Wang, Jaylin Herskovitz, Sang Won Lee, Walter
(PDF) Lasecki, and **Steve Oney**. (2020) EdCode: Towards Personalized Support at Scale
for Remote Assistance in CS Education. IEEE Symposium on Visual Languages
and Human-Centric Computing (VL/HCC). Dunedin, New Zealand.
*Best Short Paper
- C.22 Yan Chen, Andrés Monroy-Hernández, Ian Wehrman, **Steve Oney**, Walter Lasecki,
(PDF) and Rajan Vaish. (2020) Sifter: A Hybrid Workflow for Theme-based Video
Curation at Scale. The ACM International Conference on Interactive Media
Experiences (IMX). Barcelona, Spain.
- 🔗 C.21 April Wang, Zihan Wu, Christopher Brooks, and **Steve Oney**. (2020) Callisto:
(PDF) Capturing the "Why" by Connecting Conversations with Computational
Narratives. The ACM CHI Conference on Human Factors in Computing Systems
(CHI). Honolulu, Hawai'i.
- C.20 Mauli Pandey, Hari Subramonyam, Brooke Sasia, **Steve Oney**, and Sile
(PDF) O'Modhrain. (2020) Explore, Create, Annotate: Designing Digital Drawing Tools
with Visually Impaired People. The ACM CHI Conference on Human Factors in
Computing Systems (CHI). Honolulu, Hawai'i.
- C.19 Yan Chen, Mauli Pandey, Jean Song, Walter Lasecki, and **Steve Oney**. (2020)
(PDF) Improving Crowd-Supported GUI Testing with Structural Guidance. The ACM
CHI Conference on Human Factors in Computing Systems (CHI). Honolulu,
Hawai'i.
- 🔗 J.18 April Wang, Anant Mittal, Christopher Brooks, and **Steve Oney**. (2019) How Data
(PDF) Scientists Use Computational Notebooks for Real-Time Collaboration. The ACM
Conference on Computer-Supported Cooperative Work and Social Computing
(CSCW). Austin, TX, USA.
- 🔗* C.17 Lei Zhang and **Steve Oney**. (2019) Studying the Benefits and Challenges of
(PDF) Immersive Dataflow Programming. IEEE Symposium on Visual Languages and
Human-Centric Computing (VL/HCC). Memphis, TN, USA.
*Best Short Paper

- Q
C.16
Steve Oney, Rebecca Krosnick, Joel Brandt, and Brad Myers. (2019) Implementing Multi-Touch Gestures with Touch Groups and Cross Events. The ACM CHI Conference on Human Factors in Computing Systems (CHI). Glasgow, Scotland.

J.15
Steve Oney, Christopher Brooks, and Paul Resnick. (2018) Creating Guided Code Explanations with chat.codes. The ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW). New York, NY, USA.
- Q
C.14
 Shih-Chieh Lin, Chang-Hong Hsu, Walter Talamonti, Yunqi Zhang, **Steve Oney**, Jason Mars, and Lingjia Tang. (2018) Adasa: A Conversational In-Vehicle Digital Assistant for Advanced Driver Assistance Features. The ACM Symposium on User Interface Software and Technology (UIST). Berlin, Germany.
- C.13
Steve Oney, Alan Lundgard, Rebecca Krosnick, Michael Nebeling, and Walter Lasecki. (2018) Arboretum and Arbility: Improving Web Accessibility Through a Shared Browsing Architecture. The ACM Symposium on User Interface Software and Technology (UIST). Berlin, Germany.
- C.12
 Rebecca Krosnick, Sang Won Lee, Walter Lasecki, and **Steve Oney**. (2018) Espresso: Building Responsive Interfaces with Keyframes. IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC). Lisbon, Portugal.
- C.11
 Yan Chen, Sang Won Lee, Yin Xie, YiWei Yang, Walter Lasecki, and **Steve Oney**. (2017) Codeon: On-Demand Software Development Assistance. The ACM CHI Conference on Human Factors in Computing Systems (CHI). Denver, CO, USA.
- C.10
 Xin Rong, Shiyang Yan, **Steve Oney**, Mira Dontcheva, and Eytan Adar. (2016) CodeMend: Assisting Interactive Programming with Bimodal Embedding. The ACM Symposium on User Interface Software and Technology (UIST). Tokyo, Japan.
- C.9
 Yan Chen, **Steve Oney**, and Walter Lasecki. (2016) Towards Providing On-Demand Expert Support for Software Developers. The ACM CHI Conference on Human Factors in Computing Systems (CHI). San Jose, CA, USA.
- C.8
Steve Oney, Brad Myers, and Joel Brandt. (2014) InterState: A Language and Environment for Expressing Interface Behavior. The ACM Symposium on User Interface Software and Technology (UIST). Honolulu, HI, USA.
- Q
C.7
Steve Oney, Chris Harrison, Amy Ogan, and Jason Wiese. (2013) ZoomBoard: A Diminutive QWERTY Soft Keyboard Using Iterative Zooming for Ultra-Small Devices. The ACM CHI Conference on Human Factors in Computing Systems (CHI). Paris, France.
- C.6
Steve Oney, Brad Myers, and Joel Brandt. (2012) ConstraintJS: Programming Interactive Behaviors for the Web by Integrating Constraints and States. The ACM Symposium on User Interface Software and Technology (UIST). Cambridge, MA, USA.
- C.5
 Rahul Pandita, Xusheng Xiao, Hao Zhong, Tao Xie, **Steve Oney**, and Amit Paradkar. (2012) Inferring Method Specifications from Natural Language API Descriptions. The International Conference on Software Engineering (ICSE). Zürich, Switzerland.

- C.4 **Steve Oney** and Joel Brandt. (2012) Codelets: Linking Interactive Documentation and Example Code in the Editor. The ACM CHI Conference on Human Factors in Computing Systems (CHI). Austin, TX, USA.
- C.3 **Steve Oney**, John Barton, Brad Myers, Tessa Lau, and Jeffrey Nichols. (2011) Playbook: Revision Control & Comparison for Interactive Mockups. International Symposium on End-User Development (IS-EUD). Torre Canne, Italy.
- C.2 Kursat Ozenc, Miso Kim, John Zimmerman, **Steve Oney**, and Brad Myers. (2010) How to Support Designers in Getting Hold of the Immaterial Material of Software. The ACM Conference on Human Factors in Computing Systems (CHI). Atlanta, GA, USA.
- C.1 **Steve Oney** and Brad Myers. (2009) FireCrystal: Understanding Interactive Behaviors in Dynamic Web Pages. IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC). Corvallis, OR, USA.

Book Chapters (B)

- B.2 Mauli Pandey, Sharvari Bondre, Vaishnav Kameswaran, Hrishikesh Rao, Sile O'Modhrain, and **Steve Oney**. (2023) UI Development in Mixed-Ability Software Engineering Teams. Equity, Diversity, and Inclusion in Software Engineering (EDI).
- B.1 Brad Myers, Amy Ko, Chris Scaffidi, **Steve Oney**, YoungSeok Yoon, Kerry Chang, Mary Beth Kery, and Toby Li. (2016) Making End User Development More Natural. Advances in End User Development (EUD).

Refereed Posters (P), Workshops (W), Doctoral Consortiums (D), Demos (E), and Panels (A)

- P.22 Xiangyu Zhou and **Steve Oney**. (2026) Simulating Human Cursor Trajectories for Path-Sensitive GUI Evaluation. Posters of the ACM CHI Conference on Human Factors in Computing Systems (CHI Posters). Barcelona, Spain.
- W.21 Jiacheng Zhang, Carl Fan, and **Steve Oney**. (2025) Understanding Challenges and Needs of Using AI in Web Automation Systems. Designing and Developing User Interfaces with AI: Advancing Tools, Workflows, and Practices (CHI2025-CompUI). Yokohama, Japan.
- W.20 Ashley Zhang, Yinuo Yang, Maryam Arab, Yan Chen, and **Steve Oney**. (2025) Understanding And Guiding Student-AI Interaction In Future Programming Education. CHI 2025 Workshop on Augmented Educators and AI (CHI2025-AE&AI). Yokohama, Japan.
- E.19 Ashley Zhang, Xiaohang Tang, **Steve Oney**, and Yan Chen. (2024) Demonstration of CFlow: Supporting Semantic Flow Analysis of Students' Code in Programming Problems at Scale. Demos at the ACM Conference on Learning @ Scale (L@S Demos). Atlanta, GA.

- E.18 Yinuo Yang and **Steve Oney**. (2024) VizCode: A Practical Real-time Tool for In-Class Computer Programming Tutoring. Demos at the ACM Conference on Learning @ Scale (L@S Demos). Atlanta, GA.
- A.17 Jane Im, Himanshu Zade, **Steve Oney**, Pamela Wisniewski, and Kentaro Toyama. (2024) Improving Advising Relationships Between PhD Students and Faculty in Human-Computer Interaction. Extended Abstracts of the ACM CHI Conference on Human Factors in Computing Systems (CHI EA). Honolulu, Hawai'i.
- W.16 April Wang, Zihan Wu, Christopher Brooks, and **Steve Oney**. (2024) "Don't Step on My Toes": Resolving Editing Conflicts in Real-Time Collaboration in Computational Notebooks. The IDE Workshop (IDE Workshop). Lisbon, Portugal.
- P.15 Shiyu Xu, Ashley Zhang, and **Steve Oney**. (2023) How Pairing by Code Similarity Influences Discussions in Peer Learning. Late-Breaking Work at The ACM CHI Conference on Human Factors in Computing Systems (CHI LBW). Hamburg, Germany.
- W.14 Rebecca Krosnick and **Steve Oney**. (2023) Promises and Pitfalls of Using LLMs for Scraping Web UIs. CHI 2023 Workshop: Future of Computational Approaches for Understanding & Adapting User Interfaces (CHI2023-CompUI). Hamburg, Germany.
- P.13 April Wang, Dakuo Wang, Jaimie Drozdal, Xuye Liu, Soya Park, **Steve Oney**, and Christopher Brooks. (2021) What Makes a Well-Documented Notebook? A Case Study of Data Scientists' Documentation Practices in Kaggle. Extended Abstracts of the 2021 CHI Conference on Human Factors in Computing Systems (CHI EA). (Virtual/Online).
- W.12 Yan Chen, Jasmine Jones, and **Steve Oney**. (2020) On-Demand Collaboration in Programming. Microsoft New Future of Work Symposium (MSNFWS). (Virtual/Online).
- W.11 Rebecca Krosnick and **Steve Oney**. (2020) Toward Providing Live Feedback in Web Automation IDEs. Workshop on Live Programming (LIVE). (Virtual/Online).
- P.10 Mauli Pandey, Michael Nebeling, Sun Young Park, and **Steve Oney**. (2019) Exploring the Tracking Needs and Practices of Recreational Athletes.. EAI International Conference on Pervasive Computing Technologies for Healthcare (PervasiveHealth). Trento, Italy.
- W.9 April Wang, **Steve Oney**, and Christopher Brooks. (2019) Redesigning Notebooks for Data Science Education. Human-Centered Study of Data Science Work Practices Workshop, ACM Conference on Human Factors in Computing Systems (CHI) (HuSDat). Glasgow, Scotland.
- W.8 Louis Spinelli, Mauli Pandey, and **Steve Oney**. (2018) Attention Patterns for Code Animations: Using Eye Trackers to Evaluate Dynamic Code Presentation Techniques. Programming Experience (PX/18). Nice, France.
- W.7 Yan Chen, **Steve Oney**, and Walter Lasecki. (2016) Expert Crowd Support Systems for Software Developers. Collective Intelligence (CI). New York, NY, USA.

- W.6 **Steve Oney**, Brad Myers, and Joel Brandt. (2013) Euclase: A Live Development Environment with Constraints and FSMs. International Workshop on Live Programming at ICSE (LIVE). San Francisco, CA, USA.
- W.5 Brad Myers, **Steve Oney**, YoungSeok Yoon, and Joel Brandt. (2013) Creativity Support in Authoring and Backtracking. CHI 2013 Workshop on Evaluation Methods for Creativity Support Environments . Paris, France.
- D.4 **Steve Oney**. (2011) Development Tools for Interactive Behaviors. Doctoral Consortium: IS-EUD (IS-EUD DC). Torre Canne, Italy.
- D.3 **Steve Oney**. (2010) Democratizing Computational Tools for Interaction Designers. Graduate Consortium: VL/HCC (VL/HCC GC). Madrid, Spain.
- D.2 **Steve Oney**. (2009) Empowering Designers with Creativity Support Tools. Graduate Consortium: VL/HCC (VL/HCC GC). Corvallis, OR, USA.
- W.1 **Steve Oney**, Brad Myers, and John Zimmerman. (2009) Visions for Euclase: Ideas for Supporting Creativity through Better Prototyping of Behaviors. Workshop on Computational Creativity (CHI) . Boston, MA, USA.

Preprints (R)

- R.1 **Steve Oney**. (2024) EDBooks: AI-Enhanced Interactive Narratives for Programming Education. (Preprint) .

Theses (T)

- T.2 **Steve Oney**. (2015) Expressing Interactivity with States and Constraints. Ph.D. Thesis (CMU). Pittsburgh, PA.
- T.1 **Steve Oney**. (2008) Natural Language Search of Structured Documents. M.eng Thesis (MIT). Cambridge, MA, USA.

Grants

- 11/2020 Team: **Steve Oney (PI)**
\$10,000 Sponsor: Adobe, Inc.
- 10/2020 **Designing and Building Collaborative Tools for Mixed-Ability Programming Teams**
\$60,000 Team: **Steve Oney (PI)** (and Mauli Pandey, unofficially)
Sponsor: Google Inc.
Program: Award for Inclusion Research
- 09/2020 **Improving Web Accessibility Through Multi-Resolution Mixed-Initiative Interaction Tools**
\$499,209 Team: **Steve Oney (PI)**
Sponsor: National Science Foundation (NSF)
Program: IIS: Cyber-Human Systems (CHS)

- 10/2019 **Scalable Remote Peer Help for Programming Education**
 \$598,926 Team: **Steve Oney (PI)**, Paul Resnick, and Christopher Brooks
 Sponsor: National Science Foundation (NSF)
 Program: Improving Undergraduate STEM Education: Education and Human Resources (IUSE: EHR)
- 07/2019 **Applying Literate Programming Approaches to Support Semantic Annotation**
 \$10,875 Team: Andrea Thomer (PI) and **Steve Oney (co-PI)**
 Sponsor: The U-M Office of Research (UMOR)
- 01/2018 **Designing Scalable Help Tools for Programming Courses**
 \$174,981 Team: **Steve Oney (PI)**
 Sponsor: National Science Foundation (NSF)
 Program: Cyber-Human Systems (CHS) CRII
- 11/2017 **Prototyping Tools to Improve Crowd Based Training for IVA Development**
 \$37,000 Team: **Steve Oney (PI)** and Walter Lasecki
 Sponsor: Clinc, Inc.
- 04/2017 **End-User Techniques for Aggregating and Analyzing Exercise and Physical Data**
 \$198,327 Team: **Steve Oney (PI)**, Michael Nebeling, and Sun Young Park
 Sponsor: Michigan Exercise Science & Sports Initiative

Awards

- 09/2021 **UMSI Excellence in Instruction Award**
- 09/2015 **University of Michigan President's Postdoctoral Fellowship**
- 10/2009 **UIST Student Innovation Contest, 1st place**
 Part of winning team in most creative category
- 09/2009 – 05/2012 **Ford Foundation Predoctoral Fellowship**
 Annual stipend of \$20,000 for three years, awarded to 60 doctoral students nationwide across disciplines
- 09/2009 **Google/UNCF Scholarship**
 One-year scholarship for \$10,000
- 09/2008 **NEWMAC Academic All-Conference**
 Awarded for academic success while a member of MIT's varsity track team
- 09/2008 **MIT Battlecode Open Programming Competition Finalist**
- 09/2008 – 05/2011 **ARCS Foundation Scholarship (Pittsburgh Chapter)**
 Annual stipend of \$5,000 for three years. Awarded to 13 doctoral students in the Pittsburgh area (CMU & University of Pittsburgh)

Invited Presentations

- 11/2021 **Stanford HCI Seminar**
(remote) Designing Tools for Remote Communication in Programming
- 11/2021 **Harvard Computer Science Colloquium**
(remote) Designing Tools for Remote Communication in Programming
- 5/2021 **Adobe Research HCI Seminar**
(remote) Designing Tools for Remote Communication in Programming
- 12/2020 **University of Washington DUB Seminar**
(remote) Designing Tools for Remote Communication in Programming
- 10/2020 **MIT CSAIL HCI Seminar**
(remote) Designing Tools for Remote Communication in Programming
- 11/2019 **Indiana University**
Bloomington, IN Designing Tools for Remote Communication and Collaboration
- 11/2018 **Williams College**
Williamstown, MA CS Colloquium—Designing Tools for More Effective Remote Communication
- 11/2017 **University of Wisconsin**
Madison, WI HCI Seminar: Designing Tools for Remote Communication Between Programmers
- 03/2016 **University of Michigan School of Information**
Ann Arbor, MI Programming Tools that Speak our Language
- 10/2015 **University of Notre Dame Department of Computer Science and Engineering**
South Bend, IN Expressing Interactivity with States and Constraints
- 04/2015 **University of Illinois at Chicago Department of Computer Science**
Chicago, IL Expressing Interactivity with States and Constraints
- 03/2015 **Boston University Department of Computer Science**
Boston, MA Expressing Interactivity with States and Constraints
- 03/2015 **FX Palo Alto Laboratory**
Palo Alto, CA Expressing Interactivity with States and Constraints
- 03/2015 **Stony Brook Computer Science Department**
Stony Brook, CA Expressing Interactivity with States and Constraints
- 02/2015 **University of California at Irvine**
Irvine, CA Expressing Interactivity with States and Constraints
- 03/2010 **Dagstuhl: Practical Software Testing: Tool Automation and Human Factors**
Dagstuhl, Germany
- 06/2009 **IBM Almaden Lunch Seminar**
San Jose, CA FireCrystal: Understanding Interactive Behaviors in Dynamic Web Pages

Service

Organizing Committee

- 2023 – 2027 Steering Committee (Vice-Chair 2024-2025, Chair 2025-present)
IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC)
- 2026 General Chair (with Michael Nebeling)
UIST
- 2024 – 2026 Most Influential Paper Award Co-Chair
VL/HCC
- 2022 – 2023 Sponsorship Co-Chair
UIST
- 2021 Program Co-Chair (with Jácome Miguel Costa Cunha)
IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC)
- 2020 Graduate Consortium co-chair (with Michael Lee)
IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC)

Program Committee

- 2017 – present ACM Symposium on User Interface Software and Technology (UIST)
- 2022 ACM Conference On Computer-Supported Cooperative Work And Social Computing (CSCW)
- 2016 – present ACM Conference on Human Factors in Computing Systems (CHI)
- 2018, 2020 ACM International Conference on Supporting Group Work (GROUP)
- 2017 – 2020 Programming Experience Workshop (PX)
- 2019 International Workshop on Eye Movements in Programming (EMIP)
- 2019 ACM Conference on Tangible, Embedded, and Embodied Interactions (TEI)
- 2019 Tech Notes for the ACM SIGCHI Symposium on Engineering Interactive Computing Systems (EICS)

Peer Review

- 2018 IEEE Transactions of Software Engineering (TSE)
- 2018 ACM Transactions on Computer-Human Interaction (TOCHI)
- 2010 – present ACM Conference on Human Factors in Computing Systems (CHI)
- 2014 Conference on Human-Computer Interaction with Mobile Devices (MobileHCI)

2010, 2012 ACM Conference on Designing Interactive Systems (DIS)
2008, 2009 Philippine Journal of Science (PJS)
2013 – 2015 ACM UIST Operations Committee (mobile program guide)

Operations

2011 – 2015 ACM Symposium on User Interface Software & Technology (UIST)
2012 – 2015 ACM CHI Operations Committee (mobile program guide)
2013 – 2015 ACM ITS Operations Committee (mobile program guide)
2012 ACM UbiComp Committee (mobile program guide)
2010, 2011 ACM CHI student volunteer (mobile guide development team)

UMSI

2026 – *present* MSI Program Committee Chair
2023 – 2026 UMSI Culture and Community Committee Co-Chair
2018 – 2020 & 2021 School of Information BSI Committee
– 2022
2021 – *present* Faculty Advisor for UMSI chapter of Upsilon Pi Epsilon (International Honor Society for the Computing and Information Disciplines)
2019 – 2020 School of Information Technical Curriculum Task Force
2018 – 2019 University of Michigan Interactive and Social Computing (MISC) Coordinator

Other

2009 – 2015 CMU Computer Science outreach roadshow volunteer (with Women@SCS & SCS4All)
2011 – 2014 CMU Human-Computer Interaction Institute (HCII) ombudsperson
2010 CMU Human-Computer Interaction Institute (HCII) visit weekend co-chair
2009, 2010 CMU Human-Computer Interaction Institute (HCII) PhD lunch coordinator
2025 CSE Promotion and Tenure Committee

Teaching

2026 **Practical JavaScript: From Scratch to React (Coursera Specialization)**
University of Michigan & Coursera <https://www.coursera.org/specializations/practical-javascript-from-scratch-to-react>

Fall 2025, Fall 2026 **Co-Instructor – SI 506 (Programming I)**
University of Michigan

Winter 2026 **Co-Instructor – SI 347 (Human-Computer Interaction)**
University of Michigan

2023 – present **Instructor (and creator) – SI 379 (Building Interactive Applications)**
University of Michigan

2021 – 2023 **Instructor (and creator) – SI 579 (Building Interactive Applications)**
University of Michigan

2016 – present **Instructor – SI 106 (Programs, Information, & People)**
University of Michigan

2019 **Python 3 Programming Specialization**
University of Michigan & Coursera <https://www.coursera.org/specializations/python-3-programming>

Fall 2012 **Instructor – Web Lab, Programming User Interfaces**
Carnegie Mellon Developed syllabus, wrote lectures, created projects, presented, graded, and held office hours weekly. Instructor rating: 4.7/5.0

Fall 2010 **Instructor – GUI Lab, Programming User Interfaces**
Carnegie Mellon Developed syllabus, wrote lectures, created projects, presented, graded, and held office hours weekly. Instructor rating: 4.6/5.0

Fall 2007 & Spring **Instructor – GUI Lab, Programming User Interfaces**
2008 Taught three recitation sections per week, held weekly office hours, and graded
MIT students' exams

Summer 2007 **Teaching Assistant – Interphase Physics I**
MIT Taught three classes per week, held weekly office hours, and mentored a group of incoming MIT freshmen

Spring 2005 **Teaching Assistant – Technology Enabled Learning (TEAL) Physics II**
MIT

Spring 2005 – Fall **Laboratory Assistant – Circuits and Electronics**
2006
MIT

Fall 2006 **Laboratory Assistant – Computational Structures**
MIT

Advising

Dissertation Chair (Ph.D. Graduates)

Fall 2018 – Spring **Lei Zhang (School of Information)**
2024 Designing End-user Creation Tools for Immersive Experiences
University of Michigan (co-advised with Anhong Guo)
Currently: Assistant Professor at NJIT

Fall 2018 – Summer 2023 **(Mauli) Maulishree Pandey (School of Information)**
University of Michigan Accessibility of Collaborative Programming for Blind and Visually Impaired Developers
Currently: UX Researcher at Google

Fall 2017 – Summer 2023 **Rebecca Krosnick (Computer Science and Engineering)**
University of Michigan Improving Web Automation Tools through UI Context and Demonstration
Currently: Software Engineer at Postman

Fall 2018 – Spring 2023 **April Yi Wang (王奕) (School of Information)**
University of Michigan Interactive Programming Interfaces for Data Science Collaboration and Learning
(co-advised with Christopher Brooks)
Currently: Assistant Professor at ETH Zürich

Fall 2015 – Fall 2020 **Yan Chen (School of Information)**
University of Michigan On-Demand Collaboration in Programming
Currently: Assistant Professor at Virginia Tech

Ph.D. Advisees (Ongoing)

Fall 2025 – present **Xiangyu Zhou (Computer Science and Engineering)**
University of Michigan

Fall 2023 – present **Jiacheng Zhang (张佳程) (School of Information)**
University of Michigan

Fall 2021 – present **Ashley Ge Zhang (张歌) (School of Information)**
University of Michigan

Postdoctoral Scholars

Fall 2024 – present **Maryam Arab (School of Information)**
University of Michigan

Thesis Committees (Ph.D.)

2026 **Kihoon Son (손기훈) (School of Computing)**
KAIST

2025 **John Allen (Computer Science Department)**
Washington University Code Stories for Software Repurposing
in St. Louis

2025 **Xinying Hou (School of Information)**
University of Michigan Advancing Personalized, Engaging Learning and Assessment in the AI Era

2025 **Jingyuan Zhu (Computer Science and Engineering)**
University of Michigan Solutions for Link Rot on the Modern Web

2025 **David Moon (Computer Science and Engineering)**
University of Michigan Syntactic Completions with Material Obligations

2025 **Andrew Blinn (Computer Science and Engineering)**
 University of Michigan

2025 **Zihan Wu (School of Information)**
 University of Michigan Designing and Evaluating Fine-Grained Interactive Practice Tools for Novice Programming Learners

2021 **Hari Subramonyam (School of Information)**
 University of Michigan Designing AI Experiences: Boundary Representations, Collaborative Processes, and Data Tools

2020 **Vaspol Ruamviboonsuk (Computer Science and Engineering)**
 University of Michigan Understanding and Improving the Performance of Web Page Loads

2019 **Shih-Chieh Lin (Computer Science and Engineering)**
 University of Michigan Cross-Layer System Design for Autonomous Driving

2017 **Sang Won Lee (Computer Science and Engineering)**
 University of Michigan Improving User Involvement Through Live, Collaborative Creation

2017 **Xin Rong (School of Information)**
 University of Michigan Neural Language Models for Data-Driven Programming Support

Thesis Chair (M.S.)

2024 – 2026 **Carl Fan**
 University of Michigan Human-Centered Needs and Preferences for AI-Assisted Web Automation

2024 **KJ Green**
 University of Michigan AI-Driven Programming Education for Black, Latinx, and Afro-Caribbean Communities

2024 **Yue Shen**
 University of Michigan An LLM-based Method for Tailoring Coding Tutorials

2018 **(Mauli) Maulishree Pandey (School of Information)**
 University of Michigan Exploring and Designing for the Self-Tracking Needs of Recreational Athletes

Thesis Committees (M.S.)

2026 **Shalini Madan (School of Information)**
 University of Michigan Accessibility Heuristics for Vibe Coding Interfaces

2024 **Jiaqi Wu**
 University of Michigan Exploring Bridges Between Creative Coding and Visual Generative AI

2020 **Xunan (Andy) Zhou (School of Information)**
 University of Michigan Conversational Agent Experience: What makes a good skill?

2020 **Kangning Chen (School of Information)**
 University of Michigan Providing Examples and Tool Support for Novice AR Creators

2019 **Katy Madier (School of Information)**
 University of Michigan Enabling Low-cost Co-located Virtual Reality Experiences

2024 Yinuo Yang
University of Michigan

Press

- VentureBeat*, 2014 Adobe and CMU researchers unveil a brilliant new JavaScript library: ConstraintJS
June 23
- Wired*, 2013 Researchers Figure Out How You Can Type on a Smartwatch
May 1
- Slashdot*, 2013 CMU Offers Wee QWERTY Texting Tech for Impossibly Tiny Devices
May 1
- Gizmodo*, 2013 How Typing on a Smart Watch Might Actually Make Sense
April 29
- MIT Tech Review*, A QWERTY Keyboard for your Wrist
2013 April 27

Patent

- 11/2016 US Patent number 9,495,134. "Methods and Apparatus for Code Segment Handling" Brandt, J. & Oney, S.