



Alannah Oleson

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RESEARCH INTERESTS

I research in the intersection of design, human-computer interaction, and computing education. I explore how software practitioners learn to design software for others, particularly inclusive and ethical software interfaces.

Topics human-computer interaction, computing education, inclusive design, design education

EDUCATION

2018 – present

Ph.D. in Information Science

University of Washington, Seattle
Advisor: Andrew J. Ko

2014 – 2018

Honors B.S. in Computer Science

Oregon State University
Advisor: Margaret Burnett
Thesis: Pedagogical Content Knowledge for Teaching Inclusive Software Design

EXPERIENCE

September 2018 – present

Graduate Research Assistant / NSF Graduate Research Fellow

University of Washington, Seattle, WA

- Exploring the role of design in computing education to engage diverse populations in computing and promote creative, inclusive, & ethical software design practices
- Current projects
 - Defining types of design and design skills in K-12 computing education
 - Understanding “useful” empathy in user experience (UX) design

June 2017 – September 2017

Procedural Imaging Group Intern, Creative Intelligence Lab

Adobe Research, San Jose, CA

- Mentors: Cynthia (Jingwan) Lu, Jose Echevarria, Radomir Mech
- Designed and implemented interface for AR guided selfies camera app [p1]
- Designed and ran user studies to inform interface design
- Developed proof-of-concept prototype iOS app: XCode IDE, Swift, Objective-C

December 2014 – June 2018

Undergraduate Research Assistant

Oregon State University, Corvallis, OR

- Mentor: Margaret Burnett
- Researched end-user software engineering and gender-inclusive software interfaces
- Project Lead: GenderMag-Teach [c4, w2]
- Other projects: GenderMag [c2, b1, c3, w1, c5], The Idea Garden [c1, j1, b1]

PUBLICATIONS

Peer-Reviewed Papers

- c6 Alannah Oleson, Brett Wortzman, and Andrew J. Ko. 2019. **On the Entangled Role of Design in K-12 Computing Education.** Under review, 2019 ACM Conference on International Computing Education Research (ICER '19).

- c5 Christopher Mendez, Zoe Steine Hanson, Alannah Oleson, Amber Horvath, Charles Hill, Claudia Hilderbrand, Anita Sarma, Margaret Burnett. 2018. **Semi-Automating (or not) a Socio-Technical Method for Socio-Technical Systems.** 2018 IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC), Lisbon, 2018, pp. 23-32.
- c4 Alannah Oleson, Christopher Mendez, Zoe Steine-Hanson, Claudia Hilderbrand, Christopher Perdriau, Margaret Burnett, and Andrew J. Ko. 2018. **Pedagogical Content Knowledge for Teaching Inclusive Design.** In Proceedings of the 2018 ACM Conference on International Computing Education Research (ICER '18). ACM, New York, NY, USA, 69-77.
- c3 Charles G. Hill, Maren Haag, Alannah Oleson, Chris Mendez, Nicola Marsden, Anita Sarma, and Margaret Burnett. 2017. **Gender-Inclusiveness Personas vs. Stereotyping: Can We Have it Both Ways?** In Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems (CHI '17). ACM, New York, NY, USA, 6658-6671. **Best Paper Honorable Mention**
- b1 Margaret Burnett, Todd Kulesza, Alannah Oleson, Shannon Ernst, Laura Beckwith, Jill Cao, William Jernigan, and Valentina Grigoreanu. 2017. **Toward Theory-Based End-User Software Engineering.** In New Perspectives in End-User Development, Fabio Paternò and Volker Wulf (eds.). Springer International Publishing, Cham, 231–268.
- j1 William Jernigan, Amber Horvath, Michael Lee, Margaret Burnett, Taylor Culty, Sandeep Kuttal, Anicia Peters, Irwin Kwan, Faezeh Bahmani, Andrew Ko, Christopher J. Mendez, Alannah Oleson, **General principles for a Generalized Idea Garden.** Journal of Visual Languages & Computing, Volume 39, 2017, Pages 51-65
- c2 Charles Hill, Shannon Ernst, Alannah Oleson, Amber Horvath, Margaret Burnett. **GenderMag experiences in the field: The whole, the parts, and the workload.** 2016 IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC), Cambridge, 2016, pp. 199-207.
- c1 Dastyni Loksa, Andrew J. Ko, Will Jernigan, Alannah Oleson, Christopher J. Mendez, and Margaret M. Burnett. 2016. **Programming, Problem Solving, and Self-Awareness: Effects of Explicit Guidance.** In Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems (CHI '16). ACM, New York, NY, USA, 1449-1461.

Workshops & Symposia

- w2 Margaret Burnett, Zoe Steine-Hanson, and Alannah Oleson. **The GenderMag-Teach Project.** Symposium at 2019 ACM CHI Conference on Human Factors in Computing Systems: EduCHI Global Perspectives on HCI Education.
- w1 Margaret Burnett, Anita Sarma, Christopher Mendez, Alannah Oleson, Claudia Hilderbrand, Zoe Steine-Hanson, and Andrew J. Ko. **Gender Biases in Software for Problem-Solving.** Workshop at 2018 IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC): Designing Technologies to Support Human Problem Solving. Lisbon, 2018.

Patents

- p1 Alannah Oleson, Radomir Mech, Jose Echevarria, Cynthia (Jingwan) Lu. **Smart Guide to Capture Digital Images that Align with a Target Image Model.** P7429-US 20030.152. Filed February 2018. Pending.

INVITED TALKS

May 2018

Celebrating Undergraduate Excellence (CUE) Welcome Address
Oregon State University, Corvallis, OR

AWARDS

- 2018 – 2023 National Science Foundation (NSF) Graduate Research Fellowship
- 2018 Computing Research Association (CRA) Outstanding Undergraduate Researcher, Finalist
- 2017 Adobe Research Women-in-Technology Scholarship
- 2015, 2016 Drucilla Shepard Smith Academic Award, Oregon State University

TEACHING

- Winter 2019 **Design Methods (UW INFO 360)**
Co-Instructor / Teaching Assistant
49 undergraduates
- Helped prepare and plan course content and topics to cover during instruction
 - Prepared and delivered lecture on design evaluation methods
 - Created questions to assess gaps in students' understanding of design concepts

SERVICE

- 2019 – 2020 **Communications and Outreach Coordinator, Doctoral Student Assn.**
- Administering student communications for 2019-2020 academic year, including mailing lists, social media accounts, and other outreach channels as needed/requested
- May 2019 **Student Volunteer, 2019 ACM CHI Conference**
- Nominated for SV award by session chair "for going above and beyond" SV duties
- February 2019 **Student Volunteer, 2019 ACM SIGCSE Technical Symposium**
- 2018 – 2019 **Retreat Committee Coordinator, Doctoral Student Assn.**
- Co-organizing annual PhD student retreat to welcome incoming cohort to UW iSchool
- May 2015 – June 2018 **Peer Mentor, STEM Leaders Program**
Oregon State University, Corvallis, OR
- Over three years, helped five freshmen from underrepresented backgrounds in STEM transition to and succeed in a college environment
 - Supported students as they started, completed, and presented original research under the supervision of a faculty mentor