

# Audrey Seo

PHD STUDENT · UNIVERSITY OF WASHINGTON COMPUTER SCIENCE & ENGINEERING

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## Education

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### University of Washington

PHD IN COMPUTER SCIENCE AND ENGINEERING

- GPA: 4.0
- Advisor: Professor Dan Grossman

Seattle, WA

September 2020 - present

### Wellesley College

BA IN COMPUTER SCIENCE AND MATHEMATICS (HONORS)

- GPA: 3.72, graduated magna cum laude

Wellesley, MA

August 2016 - May 2020

## Professional Experience

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- 2020-present **Graduate Research Assistant**, CSE, University of Washington
- Summer 2020 **Summer Calculus I & II Tutor**, Math Dept., Wellesley College
- 2018-2020 **Mathematics Tutor**, Math Dept., Wellesley College
- 2018-2020 **Undegraduate Research Assistant**, CS Dept., Wellesley College
- Spring 2018 **Algorithms Tutor**, CS Dept., Wellesley College

## Publications

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### PUBLISHED

Evan Patton, **Audrey Seo**, Franklyn Turbak. 2019. "Enhancing Abstraction in App Inventor with Generic Event Handlers." IEEE Blocks and Beyond Workshop. [http://audreyseo.github.io/files/blocks\\_and\\_beyond.pdf](http://audreyseo.github.io/files/blocks_and_beyond.pdf).

**Audrey Seo**. 2018. "Abstractionless Programming in App Inventor." ACM SPLASH BLOCKS+ Workshop. <http://audreyseo.github.io/files/blocksplus18-paper19.pdf>.

### IN REVIEW

Eunice Jun, **Audrey Seo**, Jeffrey Heer, René Just. 2022. "Tisane: Authoring Statistical Models via Formal Reasoning from Conceptual and Data Relationships." ACM CHI.

## Awards, Fellowships, & Grants

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2020-2021 **Edna V. Moffett Fellow**, Wellesley College Graduate Fellowships

## Presentations

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### WORKSHOP PRESENTATIONS

**Audrey Seo**. 2019. "Enhancing Generics in App Inventor with Generic Event Handlers." VLHCC: Blocks and Beyond Workshop, Memphis, TN. Conference and Poster Presentation.

**Audrey Seo**. 2018. "Abstractionless Programming in App Inventor." SPLASH BLOCKS+ Workshop, Boston, MA. Conference and Poster Presentation.

### DEPARTMENT & PROGRAM PRESENTATIONS

**Audrey Seo**. 2019. "Automatic Refactoring of Robotics Code." Carnegie Mellon University, Institute for Software Research: REUSE Poster Session. Pittsburgh, PA. Poster Presentation.

**Audrey Seo.** 2018. "Abstractionless Programming in App Inventor." Science Center Summer Research Poster Session. Wellesley, MA. Poster Presentation.

Paige Robinson, Keiko Hilmo, Daniela Gomez, **Audrey Seo.** 2018. *Girls' Generation? A Linguistic Analysis of Gender Representation in Modern South Korea.* "Social Labeling of Women In South Korea: Culturally Deleting Women's Identities." Wellesley College Ruhlman Conference. Wellesley, MA. Conference Presentation and Panel.

## Research Experience

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### University of Washington - CSE

ADVISOR: PROF. DAN GROSSMAN

- Project: Transferring proofs of source code to proofs of compiled code in a different target language

Seattle, WA

Sep. 2020 - Present

### University of Washington - CSE

MENTOR: EUNICE JUN

- Project: Statistical tools for non-experts in statistics

Seattle, WA

Jul. 2021 - Present

### Wellesley College - CS Dept.

ADVISOR: PROF. BENJAMIN WOOD

- Project: Designing a DSL for pattern matching on students' homework problems in an autograder

Wellesley, MA

Sep. 2019 - Mar. 2020

### Wellesley College - CS Dept.

ADVISOR: PROF. FRANKLYN TURBAK

- Project: Analyzing millions of MIT App Inventor projects for code smells

Wellesley, MA

Jun. 2018-Sep. 2019

### Carnegie Mellon University - CS Dept.

ADVISOR: DR. RUBEN MARTINS

- Project: Using program synthesis to automatically refactor robotics code

Pittsburgh, PA

May - Aug. 2019

## Outreach & Professional Development

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### SERVICE AND OUTREACH

2021-present	<b>UAW 4121</b> , Steward representing academic student workers in CSE	Seattle, WA
2020-present	<b>UW CSE Care Committee</b> , Volunteer and coordinator <ul style="list-style-type: none"><li>• Organize distribution of care packages</li><li>• Decrease stigma of mental illness and treatments among CSE community</li></ul>	Seattle, WA
Fall 2020 - Summer 2021	<b>UW CSE Peer Application Review Service (PARS)</b> , PARS Leader and Organizer <ul style="list-style-type: none"><li>• Helped create and organize program where current PhD students would read prospective PhD applicants' statement of purpose (SOP) drafts to help them apply to the UW CSE PhD program, or other programs</li><li>• PARS assisted students with their SOP drafts and targeted students from underrepresented minorities in order to give them a better chance of having a strong application</li><li>• Brainstormed with other leaders and organizers to create the first iteration of PARS, including scope, managing logistics, creating materials</li><li>• Read, revised, and gave feedback on six applications, all but two of which were applicants who were underrepresented minorities</li></ul>	Seattle, WA

### EXTRACURRICULARS

Winter 2021	<b>UW CSE Book Club for First Years</b> , Coordinator <ul style="list-style-type: none"><li>• Read Philip Guo's memoir <i>The PhD Grind</i> with fellow first year students to promote camaraderie</li><li>• Due to the isolation of remotely starting the PhD, first year students were at high risk of feeling alone</li><li>• This book club provided a place for first years to get to know each other and commiserate about shared experiences in a healthy way</li></ul>	Remote
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### PROFESSIONAL MEMBERSHIPS

Society of Women Engineers

Invited to Sigma Xi as a college senior