

# Arthur Borém

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## Education

Sep 2021 to present	<b>University of Chicago</b> PhD in Computer Science
Sep 2016 to May 2020	<b>Brown University</b> ScB in Computer Science

## Publications

CHI 2021	Nediyana Daskalova, Eindra Kyi, Kevin Ouyang, <b>Arthur Borem</b> , Sally Chen, Nicole Nugent, and Jeff Huang. "Self-E: Smartphone-Supported Guidance for Customizable Self-Experimentation." Conditionally accepted to the ACM CHI Conference on Human Factors in Computing Systems 2021. Yokohama, Japan.
FIE 2020	<b>Arthur Borem</b> and Christina Smith. "Developing and Supporting STEM Undergraduate Teaching Assistants as Partners in Teaching." IEEE Frontiers in Education Conference 2020. Uppsala, Sweden.

## Research Experience

Spring 2020	<b>HCI Lab — Brown University</b> Ran thematic analysis on several user journals to qualify and evaluate user experience using Self-E, an Android application that allows participants to run controlled self experiments. To learn more visit <a href="http://selfe.cs.brown.edu">selfe.cs.brown.edu</a> .
Fall 2019 to Spring 2020	<b>Sheridan Center — Brown University</b> Ran interviews with TAs in Computer Science, Physics, and Engineering to study the experience of TAs using Activity Systems Analysis. Drafted recommendations for improvements to the TA program.
Fall 2019 to Spring 2020	<b>Algos for the People — Brown University</b> Co-developer of ProtestMix, an Android application that allows demonstrators to communicate safely with each other despite the presence of IMSI-Catchers. To learn more visit <a href="http://algosforthepeople.org">algosforthepeople.org</a> .
Spring 2019	<b>Redistricting Group — Brown University</b> Created and implemented a dynamic programming algorithm to assign census blocks to districts in order to maximize the compactness and balance of district populations to combat gerrymandering and redlining.

## Grants and Awards

March 2021	Crerar Fellowship, University of Chicago
March 2021	Honorable Mention for the NSF Graduate Research Fellowship Program
Fall 2019 - Spring 2020	Problem Solving Fellow, Center for Teaching and Learning at Brown University
Fall 2019	Karen T. Romer Undergraduate Teaching and Research Award
Spring 2019	Google travel grant to the inaugural Queer Tech Voices Summit
Spring 2019 Fall 2018 Spring 2018	Brown University travel grant for ACM Richard Tapia Conference (2018), Out 4 Undergrad Tech (2018 and 2019)

## Service & Community

August 2021	<b>Panelist — Mosaic+ Alum Panel</b> , hosted by the <b>Brown University CS Department</b> and <b>Mosaic+</b>
March 2021	<b>Panelist — Out in CS Virtual Event</b> , hosted by the <b>Brown University CS Department</b>
Fall 2019 to Spring 2020	<b>Committee Member — Working Group on Undergraduate Teaching Assistants (UTA)</b> Served as one of two undergraduate students on the committee and taskforce to create and present new university-wide guidelines for TA support and work. Ran focus group to gather information on the current state of the TA program. Co-developed survey for peer institutions to gain data on current best practices for support and development of TAs.
Jan 2018 to May 2020	<b>Student Advocate for Diversity &amp; Inclusion — Brown University CS Department</b> Worked with 5 other CS students to create the curriculum for and run trainings for 300+ TAs and Head TAs every semester. Co-organized inaugural panel on LGBTQ+ workers in tech with other advocates and professors. Addressed issues of equity and inclusion in the department more broadly with the faculty committee.
Spring 2019	<b>Facilitator — Opening the Curriculum: Educational Innovation in the Liberal Arts, Brown University</b> One of two student facilitators who encouraged attendees to take part in discussions and guided conversations during the conference.
Fall 2018 to Spring 2019	<b>Mentor — Mosaic+, Brown University</b> As part of Mosaic+, a group aimed to support and develop a community of historically underrepresented students in Computer Science, mentored a first year student in Computer Science.
Fall 2019	<b>Facilitator — Undergraduate TA Orientation, Brown University</b> Facilitated small group discussions for TAs across university departments. Led teaching workshop with 6 TAs.

Summer 2018	<b>Transition Program Facilitator — Mosaic+, Brown University</b> Developed curriculum for a 3 week introductory to Computer Science program for 20 incoming first years in Computer Science. One of five facilitators who ran informational sessions and community building events for the group of students.
Fall 2017 to Spring 2018	<b>Mentor — New Scientist Collective</b> As part of the New Scientist Collective, a program is to build a community of scholars, from historically underrepresented groups, who study in STEM, a first year student in Physics and assisted in their transition to Environmental Science.

## Teaching

	<b>General Responsibilities:</b> for each experience below, I held 4 hours of office hours/lab a week, graded for about 4-8 hours a week, and did some course development up to 10 hours a week.
Spring 2020	<b>TA: Computing Foundations: Program Organization</b> (CS 112, Professor Doug Woos) Worked closely with one other TA to create eight lab assignments, handouts, and solutions in Python and Scala for the first iteration of this course in the department.
Spring 2019	<b>Head TA: An Integrated Introduction to Computer Science</b> (CS 18, Professor Kathi Fisler) Worked closely with 3 Head TAs to manage a group of 16 undergraduate TAs. Implemented the first mentorship program between TAs and students. Wrote and implemented projects for OOP practice and skills as well as grading script. Created and ran the mentorship program to match students to mentor TAs. Also designed and held project overview sessions on topics such as PageRank, HTML parsing, HTTP and networking, and browser functionality.
Fall 2018	<b>TA: Introduction to Computer Systems</b> (CS 33, Professor Thomas Doeppner) Developed new assignment handout for shell implementation project.
Spring 2018	<b>TA: An Integrated Introduction to Computer Science</b> (CS 18, Professor Kathi Fisler) Developed lesson plans and ran workshops for students to get familiarized with each project in the course.