

Katherine M. Braught

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Education

Iowa State University, Ames Iowa May 2020
Bachelors of Science *University Honors
Major: **Computer Science**, Minor: **Biology**
G.P.A.: 4.00/4.00

Current Work Experience

Software Development Intern, *Workiva Inc.* May 2018-Present

- Develops back-end Java code on an Agile team
- Maintains existing programs and implements new features

COM S 327 Advanced Programming Techniques Teaching Assistant Aug. 2018-Present

- Assists 5-30 students during office hours two hours a week
- Grades and debugs 20 student C/C++ assignments weekly

Freshman Computer Science Learning Community Peer Mentor Jan. 2018-Present

- Leads and organizes Computer Science Freshman learning community meetings for 60 students

Women in Computer Science Peer Mentor Aug. 2018-Present

- Mentors 12 freshmen women to increase retention in the Com S major

Relevant Skills

Proficient in Java
Intermediate ability in C/C++
Intermediate ability in python scripting, self-taught in context of biological data analysis
Experience developing in Linux environments

Research Experiences

Peterson Lab, *Iowa State University* Jan. 2017-Dec. 2017

- Developed an automated system to analyze regions of DNA to find suitable primer sequences
- Utilized scripting and existing programs to compare NGS data with a *Zea mays* reference genome

National Science Foundation Bioinformatics REU, *Auburn University* May 2017- July 2017

- Analyzed *Euphorbia maculata* genome utilizing Biopython and Unix scripting in a HPC cluster

Quarknet Student Researcher, *University of Iowa* June-Aug. 2016

- Developed scintillating plates for CERN

Relevant Coursework

- Introduction to Data Structures
- Discrete Computational Structures
- Introduction to Computational Biology
- Introduction of Object Oriented Programming
- Design and Analysis of Algorithms
- Advanced Programming Techniques
- Introduction to Computer Architecture and Machine-Level Programming

Professional and Leadership Development Experiences

Careers in Computer Science Teaching Assistant Jan. 2018-May 2018

- Managed class of 135 students and graded weekly assignments

Iowa State Department of Residence Community Advisor Aug. 2017-May 2018

- Supervised and supported a community of 35 residents

Principles of Biology II Learning Assistant Aug. 2017-Dec. 2017

Auburn University Bioinformatics Bootcamp June 2017

- Expanded knowledge in scripting and using programs on HPCs

Women in Science and Engineering Leadership Conference Jan. 2017

MACURH Regional Leadership Conference Nov. 2016

Emerging Leaders Retreat; Iowa State University Oct. 2016

Alpha Phi Omega LEADS Servant Leadership Development Programs Oct. 2016

Cardinal Leadership Scholars Conference Oct. 2016

Campus Involvement and Volunteer Work

Iowa State Digital Women Club Aug. 2017-Present

Iowa State Computer Science and Software Engineering Club Aug. 2017-Present

Campus Ministries, *Executive Board Secretary* Aug. 2016-Present

Wings of Hope Volunteer, Jacmel, Haiti Jan. 2018

Iowa State Alternative Winter Break Trip, Detroit Michigan Jan. 2017

Alpha Phi Omega Co-ed Service Fraternity, *Historian* Sept. 2016-Aug. 2017