

Kathryn Cunningham

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Education: B.S., University of Arizona, Honors College *Graduation date:* May 2013
Majors: Computer Science; Molecular and Cellular Biology *Minor:* Mathematics *GPA:* 3.945
Study abroad: Computer science and biotechnology, National University of Singapore, Fall 2011

Honors: *College of Science Outstanding Senior Fall 2012, Pillars of Excellence Honoree, Phi Beta Kappa, Lund-Wolfe Computer Science Scholarship, Galileo Circle Scholarship in Computer Science*

Teaching:

Teaching Assistant, 300-level quantitative biology course, University of Arizona, Spring and Fall 2012

- Created MATLAB tutorials accessible to students without programming experience.
- Developed and taught lessons on sequence alignment and MATLAB introduction.

Teacher, Programming for non-majors workshops, Women in Computer Science, Spring and Fall 2012

- Developed curriculum for and co-taught beginning Python, MATLAB, and Java classes.
- Conceived of the program and led 11 members to advertise, plan, and teach basic programming in five languages over multiple weekend workshops to 150 University of Arizona students.

Tutor, Honors Civic Engagement Teams basic skills computer classes in South Tucson, Spring 2010-Fall 2011

- Taught adults who have never used a computer how to type, browse the Internet, set up an email account, find online job applications, and use social networking during Saturday drop-in hours.
- Gave one-on-one instruction in both English and Spanish.

Teaching Assistant, Software Carpentry Bootcamp for University of Arizona Biologists, Spring 2013

Lesson Planner, Introductory Python Class for Middle Schoolers, Pima Country Library, Fall 2012

Mentor, Integration of Science and Computing Summer Camp for Middle Schoolers, Summer 2012

Leadership:

President, University of Arizona Women in Computer Science, Fall 2012

- Greatly increased membership and variety and frequency of events, including a Python crash course, a discussion of imposter syndrome, and a CS department-wide picnic.
- Obtained funding for six members to attend a regional conference.

Team Lead, Honors Civic Engagement Teams weekend enrichment classes, Spring 2011

- Directed a team of five to create curriculum, obtain materials, and teach workshops incorporating educational enrichment and cultural experiences for refugee children.
- Team won the University of Arizona Accolade for Best Community Service Organization.

Computer Science Outreach:

Computer Science Ambassador, Spring 2012

- Promoted Computer Science at events for K-12 students and educators.
- Suggested the use of non-computer-based activities, such as those from CSUnplugged, for outreach.
- Redesigned department brochure to promote outreach and link to online learning resources.

Teaching-related Research:

Honors Undergraduate Research Internship in Computer Science, Summer 2010

- Conceptualized and developed a customizable virtual notebook that can be programmed with quizzes, images, and interactive activities as part of the NSF CPATH project. Programming was done in Java.
- Key member of a programming team, implementing suggestions from local teachers.

Language Skills: Python with SciPy/NumPy/Matplotlib, MATLAB, Java, C, bash, assembly

Publications: Co-authored 3 publications in peer-reviewed journals and conference proceedings.