

ACM 2018-2019 Student Chapter Excellence Awards Application

For Application Guidelines, see <https://www.acm.org/chapters/student-chapter-excellence-awards>

Award Category: Outstanding Community Service

Chapter Name: *

College of William & Mary ACM-W Student Chapter (154723)

City: *

Williamsburg

State/Province:

VA

Country: *

USA

Outstanding Community Service: Chapter Contact Information

Please provide all required information

URL for your Chapter homepage: *

For example, <https://www.acm.org>

<https://wmswc.github.io/>

Facebook:

<https://www.facebook.com/WMSWC/>

Who is submitting this application? *

Enter Submitter's name

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Submitter's Email: *

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Faculty Sponsor Name: *

Evgenia Smirni

Faculty Sponsor Email: *

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Outstanding Community Service: Chapter Achievements

Provide brief descriptions as requested, and stay within the character limit for each

Please provide a brief description of your chapter and school (1500 character maximum) *

The Society of Women in Computing aims to meet the goals of ACM-W and seeks to bridge the gender gap in computing-related fields within the William & Mary community as well as the greater Williamsburg area. We also seek to act as a central organization for women at the college and provide resources and opportunities for women to network, foster relationships and share their experiences in computing.

Our organization hosts events as an official student organization and cater to both the computer science and the grater W&M community. Over the past academic year, we have run many workshops including launch and deploy a website, intro to open-source, and intro in command line. We also host Grace Hopper panels to raise interest and encourage W&M students to apply and attend GHC, and organize trips to hackathons such as VTHacks and Hoya Hacks with W&M ACM. In addition, we host a semesterly Hour of Code during which we introduce attendees to Python which we also do at W&M's hackathon, Cypher.

William & Mary is a liberal arts school with a rapidly growing computer science program. We have approximately 200 declared majors and 30 minors with a gender ratio of men to women of about 7:3. Most of our members have Computer Science as a primary major with some having applied math or business analytics as their primary, and all have a secondary major or minor ranging from finance and economics to psychology and music.

Outstanding Community Service Essay Guidelines (4000 character maximum) *

Tell us about each community service project, who it served, and how many people participated. Why was your chapter interested in these particular projects? If you have web pages for these projects, include the URLs.

Last year we were fortunate enough to be considered for and received the ACM Student Chapter Excellence Award for Outstanding Community Service for our Robotics Mentorship Program with Berkeley Middle School in Williamsburg.

We began our pilot program on January 31, 2018 with ten girls enrolled and four SWC mentors teaching every week. Parents as well as teachers and administrators from other WJCC schools sat in during our sessions, and gained insights and new perspectives on tackling the gender gap. We were even featured in a WJCC school spotlight video (<https://youtu.be/7bvRlvZfl2M?t=1m10s>). The program received great feedback from Berkeley, and they expressed their interest in continuing and expanding it. We were able to host the second session of the program starting February 13th, 2019. We have seen a growth in the number of participants with fifteen girls enrolled and particularly some from low-income households.

Our focus on middle school aged girls is intentional, backed by research from Accenture and Girls Who Code (GWC) which suggests that universal access to computing in schools will not address the gender gap, "only by tailoring courses to girls' specific needs can we boost their commitment to computing." Their research also finds that middle school is the most important time to expose girls to programming, and if they have computing experience then they are 18% more likely to show interest throughout their high school and college years. The action items suggested by Accenture and GWC are to 1) deepen girls' hands-on computing experience, 2) change girls' perceptions of computing and 3) support parents and teachers in understanding the wider role of computing.

In the city of Williamsburg where W&M is located, some public high schools offer computer science courses, but none are offered in middle or elementary schools. Williamsburg has a child poverty rate of 24%, and at Berkeley (BMS), one of the middle schools in the Williamsburg-James City County Public School district (WJCC), 54% of its students receive reduced or free lunches. Many of these students struggle to even make it through the education pipeline and attend college. We realized that starting a mentorship program with the girls at BMS would be a way for us to combine sparking girls' computing interests in junior high with working with underprivileged students, extending our guidance through high school and beyond.

Along with being able to continue the Berkeley Girls Robotics Mentorship Program, we have also had the privilege of being able to partner with Griffin Schools Partnership Event to host a workshop on computing during their day event at W&M to introduce students from Toano, Lois S. Hornsby and Berkeley Middle Schools and Warhill High School to computing with interesting

and tangible activities to demystify programming. We also created a new partnership with the Williamsburg Regional Library to host computer help hours for older people and to help with their STEAM (science, technology, engineering, arts and math) Saturday programs for school-aged children. These events are designed to help the community with any technology questions they may have, and to encourage and help people to learn more about computers and computing.

Our hope is that we will be able to continue the Berkeley Girls Robotics Mentorship Program and have it grow and expand along with continuing to maintain and grow our support of the greater Williamsburg community. Most importantly, we hope to retain those we mentor and keep in contact with them in the future should they need advice on coursework, career paths, or anything in between.

This form was created inside of Association for Computing Machinery.

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