

# ACM 2022-2023 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:

Virginia

Country: \*

United States of America ▼

Outstanding Community Service: Chapter Contact Information

Please provide all required information

URL for your Chapter homepage (for example, <https://www.acm.org>): \*

Please ensure your chapter logo abides by ACM's Chapter Logo Policy (<https://www.acm.org/chapters/chapter-policies>).

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

Facebook:

Who is submitting this application? \*

Enter Submitter's name

Kaitlyn Wilson

Submitter's Email: \*

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Faculty Sponsor Name: \*

Professor 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 seeks to meet the goals of ACM-W and bridge the gender gap present in computing-related fields both within William & Mary and throughout the greater Williamsburg community. We also seek to act as a central organization for female-identifying students at the college and provide resources and opportunities for these students to network, foster relationships, and share their experiences in computing. Our club caters to computer science and data science majors, as well as the greater W&M community. Over the past year, we have run many workshops including intro to the command line, resume/cover letter overview, class selection help, talks with women working in the tech industry, and technical interview assistance. In addition to formal workshops, we also offer our dues-paying members the option to submit resumes to our executive team for more personal assistance. One of our most popular programs throughout the past year has been a professor panel where we invite female computer science and data science professors at W&M to speak to students about their experiences, courses, and research opportunities they will be offering. We also are involved with getting students to conventions, both hosting Grace Hopper information sessions to raise interest and organizing trips to hackathons such as CAPWIC with W&M ACM. William & Mary is a liberal arts school with rapidly growing computer science and data science programs. We currently have around 50 dues paying members, though we are growing every meeting.

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## Outstanding Community Service Essay Guidelines (4000 character maximum) \*

Tell us about each your chapter's community service project(s) - you may list a maximum of 4. Please ensure to enumerate each one and place in order from oldest to newest. Be sure to describe each project, including: the date (add end date if it was multiple days), who it served, how many people participated, and why was your chapter interested in these particular projects? If you have web pages for these projects, include the URLs. Please be sure to use your chapter's official name - do not refer to your chapter as 'ACM,' 'ACM-W' or 'WICS.' Please note, links to essays will not be accepted and will disqualify your chapter.

Our community service/ outreach project is our Girls Robotics Club at Berkeley Middle School. Beginning with our pilot program on January 31, 2018 with ten girls enrolled and four SWC mentors teaching every week, our weekly robotics program has been a huge growing experience for both the mentors and the girls enrolled. Thus we all took a huge hit when the program was paused due to the Coronavirus pandemic in 2020. Luckily, as of last year, our program has continued thanks to overwhelmingly positive feedback from Berkeley. This year is our first year since the pandemic began that we are back up and running in full capacity. We were able to start the 2023 session of the program on March 23rd, 2023. It is currently running for 6 weeks as an after-school club for the girls and will end on May 4th, 2023. We have seen a growth in the number of participants with 30 girls enrolled (the maximum amount we can hold ) and particularly some from low-income households. Additionally, we have seen a huge growth in new participants who have never participated in the program but are super excited to learn more. Our mentor participation has also increased a lot, with it booming to include 12 college-aged mentors from SWC. For the content of our program this year, we both returned to familiar concepts and added new and updated material for the girls. In terms of returning concepts from past programs, we have had reviews on key coding concepts, such as variables, loops, and conditions. In addition, we have done and will do more activities involving the Microbit programming tools and block coding. However, to keep the program modern and updated for the girls, we are including multiple new lessons and areas surrounding robotics. The main one is breadboard circuitry, which the girls are very excited about. Also, we have included a lesson on cybersecurity and staying safe on the internet, which is understandably a huge issue for life in current times. Our last addition is a 'waving robot' that will be one of the last lessons for the girls. Outside of these lessons that we will be teaching, we have coordinated with the digital media expert at Berkeley to teach the girls with hands on practice on 3d printers, button-makers, laser-cutters and more! 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. Williamsburg has a child poverty rate of 15.9%, 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. 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 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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