**Computer Science, George Mason University (CS@Mason)**
**Broadening Participation Plan**

## Context:

George Mason University is Virginia's largest and most diverse public research university (Carnegie R1), with 37,863 students. CS@Mason is the largest and fastest growing department within the School of Engineering in terms of faculty and students. There is a Mason initiative to create the first School of Computing within the state of Virginia in 2020. Table 1 provides key demographic statistics about the state, the university, engineering and the department in the years 2009 and 2019.

| | Women | | | | Hispanics and African American (referred by AH in this plan) | | | |
|---|---|---|---|---|---|---|---|---|
| UG | Virginia | Mason | VSE | CS | Virginia | Mason | VSE | CS |
| 2009 | - | 52.5% | 15.3 % | 12.1% | - | 17% | 14.7 % | 10.0 |
| 2019 | 50.8% | 49.3% | 21.6 % | 18.6% | 30% | 27.3% | 21.4 % | 17.6% |

## Mission:

CS@Mason looks to holistically broaden participation for our students, faculty, staff, and Northern Virginia community. In the next 10 years CS@Mason commits to:

- Increasing the proportion of women undergraduate students to 33%.
- Increasing the proportion of Hispanic and African American undergraduate students to 30% in line with the state's population.
- Doubling the number of female and Hispanic and African American undergraduates engaging in research activities.

## Goals:

1. Increase the number of students from AH and women groups enrolling in computing programs.
2. Increase the retention rate for AH and women in computing programs.
3. Increase the number of research and mentorship opportunities for AH and women.
4. Establish partnerships that increase the awareness of computing amongst AH and women within the local community.

## Activities:

New initiatives are in green and on-going initiatives are in blue.

Recruitment

- Developing new programs like BA in Computing.
- Engage with NOVA ADVANCE (community college pathway partnership with Northern Virginia Community College System) program to ensure CS participation in successful transfer of two-year students in the Mason degree completion timeline.
- Active CS Recruitment from High Schools in communities of color around the region.
- Reach out to admitted women and AH applicants via a webinar to encourage them to join CS@Mason.

Retention

- Engage with student chapters of the Society of Women Engineers, NCWIT, Women of Color in STEM, Society of Hispanic Professional Engineers to promote CS research and education opportunities.
- Optimize the sequence of introductory courses to be welcoming regardless of CS exposure.
- Support participation of faculty and students to attend Tapia, Grace Hopper, Anita Borg, Girls in Tech Catalyst, Wonder Women Tech, Global Tech Women Voices and Grad. Cohort Conferences.
- Establish peer mentorship and cohort models for AH and women students supported by faculty and advisors.

Research Engagement

- Incentivize faculty mentorship for AH and women students to engage in research projects via REU Site, REU programs and Mason's available opportunities.
- Participate as mentors and educators in a NSF funded National Research Traineeship Program that is targeting students with disabilities.
- Provide diversity fellowships funded by CS@Mason and School of Computing.

Community Engagement

- Partner with College for Education for developing CS teacher training programs as part of Virginia's effort to introduce CS curriculum in K-12.
- Create administrative support and faculty networks for establishing community engagement with regards to diversity, inclusivity and equity.
- Invite high-school students from the DC Metropolitan Area for a 1-day data analytics competition or student-building activities for a 1-week training program.

**Metrics for Success:**

- Percentage of students engaging in research/mentoring and participation in community-building activities, measured through custom CRA Data buddies survey.

- Demographic shifts in undergraduate and graduate student population relative to universities (admission, acceptance, graduation and retention).
- Number of Mason students and faculty per year participating in K-12 outreach programs.
- Number of students per year within the local community and Mason community reached via BPC activity.
- Yearly focus group with Women and AH students using the NCWIT Survey.