Student Proposal: Diversity and Inclusion in the Computer Science Department

Katie Bramlett[1]   Oliver Broadrick   Linnea Dierksheide
Alyssa Ilaria   Sam Kusner[2]   Catherine Meadows
Sreya Nalla[3]   Marshall Thompson   Steven Yoon[4]

[1]Co-Chair, Women in Computer Science
[2]Vice President, GW Chapter, Association for Computing Machinery
[3]Senior Class Representative, Women in Computer Science
[4]President, GW Chapter, Association for Computing Machinery
{kbramlett,obroadrick,ailaria,meadowsc,sreyanalla,mdt_}@gwmail.gwu.edu
28 February 2021

1   Introduction

To foster a diverse and inclusive community, the Computer Science Department (CSD), needs to develop and enforce a plan that is reflective of student beliefs and values. Written by students, this proposal provides specific recommendations, goals, and initiatives to the CSD to constructively improve inclusivity for all. When addressing such matters, we recognize and support the importance of placing value on voices by including the thoughts and ideas of all students, from all backgrounds. Therefore, we distributed a survey to gather thoughts and suggestions from students, as well as quantitative information. So far, we have received responses from 63 students, approximately 25% of undergraduates.

Outline   The remainder of this document is organized as follows. Section 2 describes the survey and its quantitative results. Proposed actions are presented in Section 3. Finally, Section 4 gives a brief conclusion.

2   Survey

To create an accepting, inclusive working and learning environment, we must first foster a space for meaningful participation from people of all backgrounds. Conducting an (optionally) anonymous survey allowed us to articulate a proposal, founded upon diverse ideas and perspectives, that outlines a diversity-oriented strategy for promoting an inclusive culture within the CSD.

The survey was distributed using multiple platforms. Flyers with QR Codes were posted throughout the fourth floor of the Science and Engineering Hall. Posts were made in online forums of at least one course for each undergraduate class (freshman, sophomore, junior, and senior). Several Undergraduate Teaching Assistants made announcements to their students about the survey, projecting the QR Code and giving time for students to fill it out. Lastly, the Association for Computing Machinery (ACM) and Women in Computer Science (WiCS) chapters distributed the survey to their members via email.

2.1 Questions

The survey contained the following 10 questions:

1. Please rate the inclusivity of this department based on your experience.

2. Please share any ideas for how we can make our department more inclusive.

3. If you can identify a problem with the inclusivity of our department but have no ideas for ways to improve it, you are still welcome to share your thoughts here if you would like.

4. Your name? (only if you want your responses to be publicly associated with your name)

5. Pronouns?

6. Gender identity?

7. Race/ethnic group or groups?

8. Disability status?

9. Anything else?

10. Class? (2022, 2023, 2024, 2025, other?)

2.2 Quantitative Results

The survey yielded some interesting quantitative results that can be used to further our understanding of these issues.

2.3 Themes from Qualitative Results
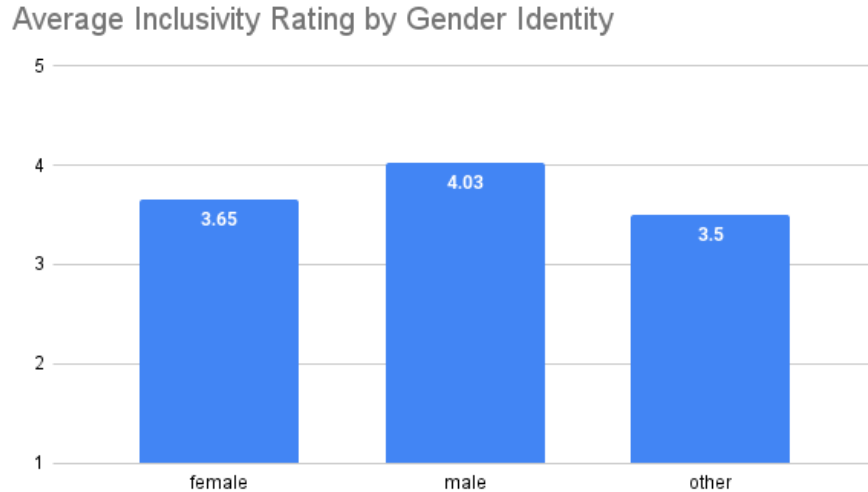
to be added and describe main themes

Figure 1: Mean inclusivity rating by gender identity. The number of responses that identified themselves in one of these categories is respectively 23, 29, and 2.

3   Proposed Actions

3.1   Undergraduate Research Outreach

All students should be aware of and feel comfortable in pursuing research opportunities with faculty. In order to increase accessibility of faculty and boost awareness, opportunities should be displayed and distributed in a public manner. This includes but is not limited to a poster displayed outside the CSD office with research opportunities and faculty contact information, publicized research talks from students and faculty, announcements to classes about research opportunities.

3.2   Mindful Pronoun Usage

Proper use of gender identity terms, including but not limited to pronouns, is an essential measure for fostering an inclusive environment. The CSD should normalize pronoun usage in a top-down approach, leading by example. This includes but is not limited to including pronouns in faculty biographies on the CSD website, in email signatures, in Zoom names, etc. Additionally, when conducting introductions in the classroom, faculty can introduce themselves and provide their pronouns and encourage students to do the same, if comfortable.
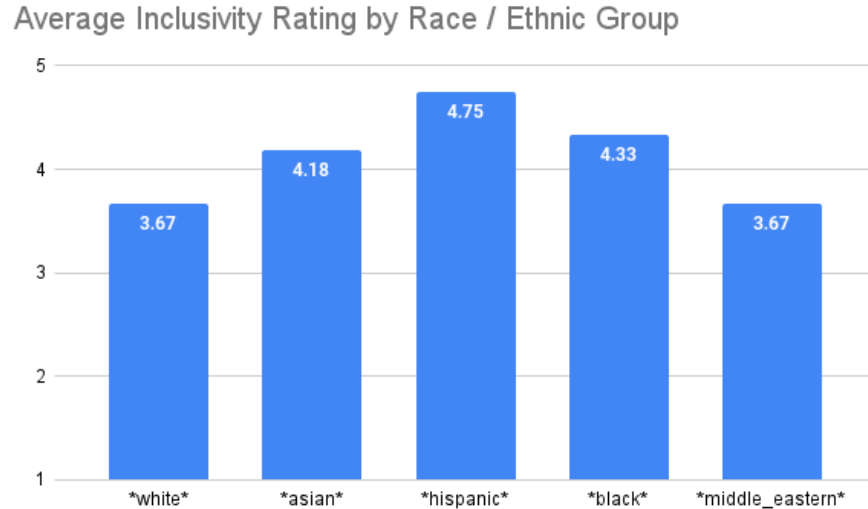
Figure 2: Mean inclusivity rating by self-described race/ethnic group. The number of responses that identified themselves in one of these categories is respectively 24, 17, 4, 3, and 3.

3.3 Diversity and Inclusion in our Curriculum

The CSD ethics course, required for all Computer Science undergraduate students, should include a thorough unit and discussion on diversity and inclusion in computing. This includes but is not limited to learning how to recognize and address unconscious bias, why diversity in engineering is crucial, opportunities and resources within the CSD, and how to have conversations about diversity and inclusion efforts.

3.4 Classroom Environment

Active inclusivity efforts in the classroom are necessary to both correct existing disparities as well as to establish a tone that prioritizes diversity and inclusion. The efforts listed below should be made explicit by professors at the beginning of each course for increased transparency and understanding. This includes but is not limited to:

- Initial introduciton in classes [todo]

- *Syllabus Diversity & Inclusion Statement.* As with the common religious accommodation, academic integrity, and DSS statements in course syllabi, faculty should be required to include a diversity and inclusion statement. This statement should provide information about resources available to
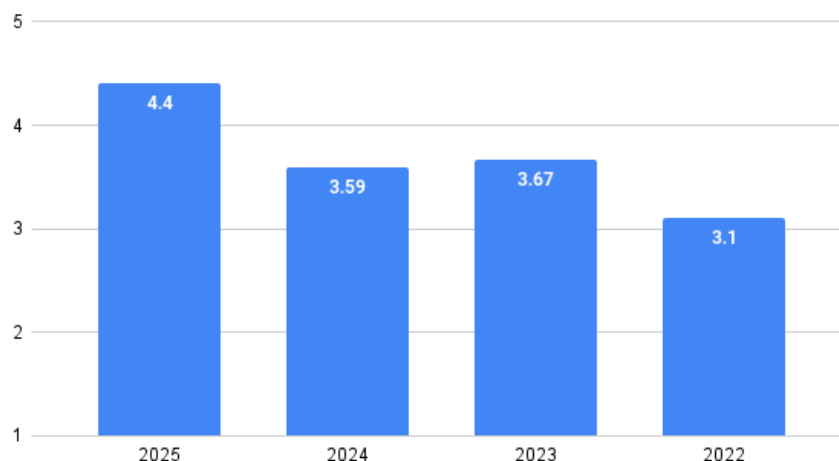
Figure 3: Mean inclusivity rating by undergraduate expected graduation year (by undergraduate class). The number of responses that identified themselves in one of these categories is respectively 20, 22, 6, and 10.

students related to diversity and inclusion. A sample statement is as follows:

> "It is my intent that students from all diverse backgrounds and perspectives be well-served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that the students bring to this class be viewed as a resource, strength and benefit. It is my intent to present materials and activities that are respectful of: gender identity, sexuality, disability, age, socioeconomic status, ethnicity, race, nationality, religion, and culture. Your suggestions are encouraged and appreciated. Please let me know ways to improve the effectiveness of the course for you personally, or for other students or student groups." [1]

- *Asssigning Groups for Class Projects.* Professors should not be allowed to assign groups based on their judgments. Groups should be assigned either (a) randomly or (b) by the choices of students.

- *Group Work Evaluations.* Peer evaluations for group assignments should be given after all group assignments or, in the case of long-term projects, given periodically throughout the term. These evaluations should include a section that specifically asks about inclusion within the group dynamic

---

[1] Brown University Diversity and Inclusion Statement Sourced from Clemson University Document

(i.e. Are your group members treating you with respect? Do you feel like your thoughts and contributions are valued by your group members?). Professors should review these evaluations in a timely manner and engage with groups who identified issues.

- *Anonymous Reporting.* Students should have an accessible platform for (optionally) anonymous feedback for each course. This could manifest as an anonymous form for reporting biased behaviors, giving feedback about inclusion efforts in the classroom, etc. This feedback should be frequently monitored by the instruction team and addressed as soon as possible.

- *Office Hours.* Office hours, often hosted in casual, common spaces where other students may linger, can potentially breed intimidating, exclusive environments. In order to enhance the accessibility of instructional team help during office hours, the CSD should assist instruction team members in reserving classroom spaces. Hosting office hours in a classroom setting will improve the ability of instructors to more fairly distribute their time to all students in attendance.

- *DSS Students.* Professors should have (student-optional) recurring check-in meetings with DSS students to ensure they have proper resources, to check on their progress, etc.

3.5   Instruction Team Training.

Undergraduate Teaching Assistants (UTAs), Learning Assistants (LAs), Graduate Assistants (GAs), and professors should receive the same diversity and inclusion training (i.e. group training from the GW Office for Diversity, Equity, and Community Engagement) prior to interacting with students as a member of the instructional team.

3.6   Conscious Hiring

The Department should make a conscious effort to interview and hire faculty candidates and student teaching staff of all backgrounds who share a commitment to upholding diversity and inclusion values. This includes asking candidates about their experiences with and interest in implementing inclusivity efforts, as well as ensuring our faculty and student instruction teams are reflective of a diverse community.

3.7   CSD Student Organizations

The CSD should develop and publicize a clear department funding approval process for student organizations.

3.8 Diversity & Inclusion Committee

The CSD should form a Diversity and Inclusion Committee, composed of both faculty members and student representatives, to monitor progress for the above proposed items and to host regular forums with students to source feedback about ongoing initiatives. The faculty advisor(s) for ACM and the faculty advisor(s) for WiCS will both sit on this committee to increase relations between the CSD and student organizations.

4 Conclusion