In this issue:

- **Welcome** ........................................................................................................................................................................... page 1

- **Recent DEIA Activities**
  - Changemakers in Computing Summer Program ........................................................................................................ page 2
  - A Vision for Engineering Literacy and Access (AVELA) ................................................................................................ page 3
  - New Intro Course Sequence ........................................................................................................................................ page 4
  - Tapia & GHC Student Experiences ............................................................................................................................... page 5
  - Pre-Application Mentorship Service (PAMS) ................................................................................................................ page 5
  - LEAP Fellows and Scholars ........................................................................................................................................ page 6

- **A Person you should Know**
  - Les Sessoms .................................................................................................................................................................... page 6

- **Announcements**
  - Land Acknowledgements ................................................................................................................................................ page 7
  - Reporting Incidences of Bias, Discrimination or Harassment ........................................................................................ page 7

**WELCOME!**

I’m pleased to introduce the first issue of the Allen School DEIA Newsletter, a quarterly publication that will highlight the many ongoing DEIA activities run by and/or available to our faculty, staff and students. The Allen School has a strong commitment to DEIA. As we nicely captured in our DEIA strategic plan, we are specifically aiming to improve the Allen School along three key dimensions: the diversity of our community and each cross section; the quality and equity of one’s experience at the Allen School; and the capacity of our community to produce technology that is just, equitable, and socially aware. To accomplish this, we rely on our staff as well as the volunteer efforts of many faculty and students. While our strategic plan lays out a lot of our work, we hope that this series of newsletters will make you more aware of the terrific work being done, of ways that you can get involved, of some of the people already involved, and of the latest activities. Enjoy!

—Magda Balazinska, Director, Paul G. Allen School of Computer Science & Engineering
RECENT DEIA ACTIVITIES

Changemakers in Computing Program

Juliet Quebatay, CSE Outreach Coordinator

This summer, the Allen School Diversity and Access team hosted Changemakers in Computing (CIC), a free, 4-week program on the Seattle campus serving Washington State high school students from low-income backgrounds and/or underserved high schools. The participating students were organized into mentee groups led by current UW undergraduate mentors. The mentees participated in community-building activities and developed programming skills through culturally relevant project-based learning. They learned about different areas of computing and explored the changemaking impact one can have through technology, looking at technology’s intersection with social responsibility. To ensure consistent and equitable participation, mentees were provided free meals cards for lunch, free public transportation passes, and received a $2,500 stipend after successfully completing the program.

23 high school students participated in this year’s CIC program. The participants were quite diverse: 48% were Black, Indigenous, or People of Color and 56% identified as female or non-binary. The college mentors guided the high school students through the program along with contributions from Allen School staff and researchers, UW’s Multicultural Outreach & Recruitment team, and community organizations (Microsoft, Africatown Community Land Trust). Together they focused on technical skill development, introductory programming, career exploration, and post-high school preparedness including goal setting and navigating applications to college. They interacted with guest speakers including Kelly Mack (CSE Ph.D. student working on accessibility and assistive technology), Mara Kirdani-Ryan (CSE Ph.D. student working on encouraging students to pursue work that allows for greater self-expression), Kasey Champion (CSE Instructor and High School CS teacher), and Evan Poncelet (Director of Information Technology, Africatown Community Land Trust). The mentees took a field trip to the Microsoft Redmond campus where they heard from current employees Nandita Gupta and Alexandra Gore, and took a tour of the Microsoft Visitor Center and The Garage. In all these activities, the Mentees were challenged to think about the potential of computing.

To wrap up the program, mentees took the knowledge they gained to participate in a week-long hackathon. The hackathon prompt was “What is an inequity in society that is important to you, and what could you create to address it?” Mentees were divided into seven groups and envisioned products that address the lack of clean water in America, access to educational opportunities and resources, menstrual products accessibility, and mental health. Mentees were encouraged to build a website, give a presentation, and design a prototype of their creation to present to their peers, mentors, and judges. Our guest speakers and Microsoft employees were invited to judge the final products. The winning project was ProtBot, an app that allows users to connect with local activist groups when protests and other activism events are happening near them.

We are excited to expand our program and host 40 students on campus next summer! If you are an undergraduate student interested in getting involved, we will be hiring our next mentor team in Winter 2023!

Six CIC students with their mentor.
A Vision for Engineering Literacy and Access (AVELA)

Kyle Johnson, Co-Founder AVELA

AVELA is a registered student organization (RSO) at the University of Washington that supports and empowers students typically underrepresented in computing: African American/Black, Hispanic American/Latine, and American Indian/Native. It works to improve student retention and post-graduation employment rates with multi-week classes, workshops, panels, keynotes, tutoring services, and other forms of community outreach.

AVELA focuses on three key objectives:

1. **Representation**: Providing STEM content and tutoring at the K-12 and community college levels delivered by AVELA members from the supported populations and communities.

2. **Ubuntu** (Humanity towards others): Empowering UW students from the underrepresented groups to participate in K-14 outreach with the mentorship, financial resources and academic support they need to run classes, workshops and tutoring sessions.

3. **Adaptation**: Engaging learners with STEM content and hands-on activities that cater to the expressed interests of the students, teachers, and/or families that AVELA supports.

As an example, in a recent summer class, students learned the importance of computing technologies through hands-on crafts that require tedious fabrication processes, before using a computing platform for visualizing object geometries. They then physically built a 3D fractal, before learning the basics of Python coding to program their own fractals. Python basics were further developed by exploring machine learning concepts through gaming, working with Tetris, Pong and a custom-made Tanks environment. Finally, students competed with the trained Tanks players they’d developed in a double elimination tournament competition. In a follow-on Fall course, students can focus on the graphical component of games.

In 2021-22, AVELA’s culturally responsive outreach and teaching reached 500+ K-14 students in more than 20 schools and community centers. The 60+ AVELA members have made more than 50 lesson plans ranging from 1-hour workshops, all the way up to 60-hour lesson plans. Through it all, AVELA has remained 100% led and organized by university students from the underrepresented groups served.

AVELA co-founders Kyle Johnson and Vicente Arroyos working with students at the William Grose Center in Seattle's Central District.
New Intro Course Sequence! CSE 121, 122,123

Brett Wortzman, Associate Teaching Faculty

For two years, a team of Allen School faculty, students, and outside contributors has been working to create a new, three-quarter sequence of introductory programming courses. One of the significant goals was to design the courses (CSE121, CSE122 and CSE123), both individually and as a group, to improve DEIA for students. How was that done?

Clearer Guidance on Which Course to Take. Each course was designed as a possible entry point in order to reduce the extent to which less-experienced students end up feeling behind even as their course starts (often resulting in increased anxiety and a decreased sense of belonging). CSE121 and CSE122 are both friendly and welcoming courses, CSE 121 for students with no prior programming experience and CSE122 for students with some programming experience (though it doesn’t assume CSE 121 or even programming in Java). CSE 123 is for those with even more experience. An online Guided Self-Placement helps students identify where they should start.

Broadening Applications and Increasing Student Agency in Work. In developing the new assignments, the team aimed to better engage our students who come with widely different backgrounds, interests, and goals. Half of the larger assignments were developed as “creative projects” having a smaller, structured activity followed by a largely open-ended extension in which students can bring in their own interests to apply and/or expand upon the requirements in a manner of their choice. Further, each assignment showcases a specific application of computer science, such as simulating elections, analyzing trends in social media posts, and algorithmically triaging medical patients. Taken together, these approaches provide increased agency for students and lets them see and experience first-hand how programming skills are relevant to their lives.

Supportive and Flexible Policies. The CSE 12X sequence was built around supportive and student-centered policies including the opportunity to resubmit work after receiving and responding to feedback, holistic grading practices, lower-stakes opportunities for students to practice with and demonstrate new skills, and not computing final grades on a curve. While these policies benefit all students, there is increasing evidence that they disproportionately benefit the students who arrive with less prior computing experience.

Accessibility from the Start. All course content was designed with an eye towards accessibility. A member of the development team was a dedicated accessibility expert, tasked with developing guidelines for producing accessible materials (e.g. proper usage of HTML tags, providing alt text for all images, ensure accurate captions on all videos) and auditing both content and platforms (e.g. Ed, the course website) for accessibility concerns. Many of the guidelines followed are good universal design, helping all students, not just those with disabilities, and at the same time reducing the work for instructors needing to comply with many DRS accommodations.

There is still plenty of work to be done, but our hope is that these changes will enable a more diverse population of students than ever before to both enroll and succeed in our courses. For more information, feel free to peruse the CSE 121 and CSE 122 websites or reach out to the instructors.

THOSE WHO WORKED DEVELOPING 12x

**Leads**
- Jessica Burroughs
- Anthony Chung
- Shanda Dokka
- Duncan Du
- Noa Ferman
- Chloe Fong
- Kyler Gray
- Parker Gustafson
- Colton Harris
- Ray He
- Anderson Lee
- Melissa Lin
- Kelvin Ng
- Joe Spaniac
- Nicolas Matthew Suhardi
- Justin Ung
- Sara Wu
- Simon Wu
- Jennifer Xu
- Benjamin Zhou
- Jolie Zhou

**Faculty/Instructors**
- Hunter Schafer
- Miya Natsuhara
- Kevin Lin

**Core development TAs**
- Sumant Guha
- Jyoti Lama
- Joe Lang
- Aerin Malana
- Leah Perlmutter
- Jaden Wang

**Additional TAs**
- Poojitha Arangam
- Ido Avnon
- Andrew Awada
- Hitesh Boinpally

...and all the TAs from Autumn 2022 & Winter 2023!
The Allen School was well-represented at both of the premier diversity-focused CS conferences in 2022: the Richard Tapia Celebration of Diversity in Computing (Washington DC, September 7-10) and the Grace Hopper Celebration of Women in Computing (Orlando, FL, September 21-23).

The Allen School provided funding for 7 undergrads and 3 graduate students to attend the Tapia Conference, which featured a variety of educational and networking opportunities for students from groups underrepresented in computing. Les Sessoms, our graduate program Recruitment & Retention Specialist, participated in a panel discussion entitled “Increasing Diversity in Ph.D. Programs in Computing.” Other staff members and Ph.D. students Shaan Chopra, Kentrell Owens, and Diana Babirye manned a UW Ph.D. recruiting booth where prospective grad applicants could ask questions, speak to Allen School doctoral students and hear about the CS Next Graduate School Prep Workshop and the Pre-Application Mentorship Service (PAMS). Finally, there were some community-building events for LEAP Fellows.

The Allen School also provided funding for 17 undergrads and 3 grad students to attend the Hopper Conference in person, with another 10 students participating virtually. The conference focused on outreach to women interested in graduate school, in the hopes of getting more women and non-binary people involved in technology. Here too, the Allen School staff along with Ph.D. students Cady Pearce, Miranda Wei, and Ana Raghunath participated in a Career Expo where they promoted our Ph.D. program and advertised the CS Next Graduate School Prep Workshop and PAMS.

The Pre-Application Mentorship Service (PAMS) is an annual graduate student-led initiative to support students from historically marginalized groups who are interested in applying for grad school but have questions about doing that. The 2022 PAMS campaign was co-led by UW CSE doctoral students Moe Kayali and Jake Sacks.

PAMS applicants participate in the two-phase program with the understanding that the process is completely separate from the official Ph.D. application process and therefore does not guarantee admission to the Allen School. During the first phase, the applicants were matched with a mentor (a current CSE grad student) for a 30-60 minute virtual meeting to answer their questions on getting started. In the second phase, each received one round of feedback on their application materials (that is their statement of purpose and CV).

For the 2022 year,
- 181 mentees applied (163 or 90% self-identifying as marginalized or under-represented),
- 167 mentees were matched (including 100% of the above 163 applicants), and
- 45 mentors participated, each taking 4 mentees on average.

Allen School graduate Ph.D. students put in roughly 1,400 person-hours of volunteer time (which from Independent Sector’s calculation of the worth of national volunteer’s time is a contribution of more than $42,000!).
The Allen School’s DEIA Newsletter, First Edition, Winter Quarter 2023

The Diversifying Leadership in the Professoriate Alliance (LEAP)

Where could we start in building a more diverse and inclusive tech community in general? There are lots of possibilities but the LEAP Alliance focuses on building a more diverse CS professoriate – the faculty that provide the role models and mentors for students.

Data shows that the vast majority of CS faculty at U.S. research institutions got their PhDs from a very small number of top CS departments. What if those departments increased the diversity in their Ph.D. programs thereby providing a more diverse pool of faculty candidates nationwide? The LEAP Alliance has created a network focused on this change.

Under the leadership of the National Center for Minorities and People with Disabilities in IT (CMD-IT), the Allen School along with departments from Berkeley, Carnegie Mellon, Cornell, Georgia Tech, Harvard, Illinois, MIT, Princeton, Stanford, and UT Austin have banded together with individuals and organizations that understand how to recruit, retain, and develop students from underrepresented groups. LEAP Alliance members meet regularly to share best and promising practices, discuss challenges encountered and build on each other’s experiences. Since 2017, LEAP members have collectively increased the number of their Ph.D. students from the underrepresented groups by 46%!

More recently LEAP has grown to include three additional cohorts. One of them, in which UW also participates, takes a step further back in the pipeline and looks at the departments that send the most undergraduates to graduate programs in the top schools that ultimately produce the most CS faculty. Many of our students participate in activities designed for LEAP students – our grad students who participate are LEAP Fellows and our undergrads are LEAP Scholars. Together, we hope that these students will lead the way to a more diverse CS professoriate and ultimately a more diverse CS field.

SPOTLIGHT: A PERSON TO KNOW!

Les Sessoms serves as the Allen School’s Recruitment and Retention Specialist for the graduate program. Much of his work revolves around making our Ph.D. program more inclusive. To make sure that our application pool is as rich and deep in diversity as it can be, for example, he represents the Allen School at national conferences (Tapia, GHC, and the conferences of the National Society of Black Engineers, the Society of Hispanic Professional Engineers, American Indian Science and Engineering Society, etc.) to generate inquiries and applications from those who are underrepresented in computing. He is the staff liaison for the UW CSE Pre Application Mentorship Service (PAMS) program and he manages the LEAP Alliance & LEAP Fellows Program, is staff coordinator for the New Grad Mentor Program, and staff adviser for the Minorities in Tech (MIT) affinity group.

Les says of his role:

*My job, as I see it, is the missing piece to the DEIA puzzle: engage BIPOC and women grad students to help them establish their “computer science identity.” They first have to imagine themselves as computer scientists and computer engineers and then work to stay on the path towards that vision. We have to help them protect their visions by overcoming imposter syndrome and building resiliency. We design mentoring programs that support retention, giving them access to an educational pathway that will help them achieve their career goals.*

*Science is a team sport; teams with diverse backgrounds produce better research and products.*

Les identifies as a Black man with Ojibwe Chippewa heritage (Grand Portage Minnesota Chippewa Tribe). He’s a First-Generation college student who grew up in Seattle and obtained a B.A. in Political Science from the University of Washington and a Masters in Organizational Leadership from Chapman University. He lives in Federal Way where he likes to spend time with family and friends. A self-confessed former couch potato, he also likes to run which he does regularly with the running group, Black Men Run Seattle.
ANNOUNCEMENTS

- **Want to know more about Land Acknowledgements?** COE has a new, online training. While designed for faculty and staff, it’s available for anyone, though best when used by a small group with breaks for discussion and reflection.

- **Have you experienced an incident of bias, discrimination or harassment that should be reported?** COE has a new Bias Reporting mechanism created to quickly respond to students with support and advice on accessing further university offices and programs. In addition, each unit within COE now has a trained Advocate charged with supporting and assisting anyone submitting a report. The Advocate for the Allen School is Jan Cuny (jcuny@cs.washington.edu). Contact her with any questions or concerns around bias reporting.

- **Suggestions for the next issue?** Contact Jan Cuny (jcuny@cs.washington.edu).