SIGCSE *Bulletin*
Vol. 56, No. 3

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SIGCSE News in Brief

Welcome to the July issue of the SIGCSE Bulletin. We're excited to present an overview of the SIGCSE community's work over the past few months – as well as a preview of coming events over the next several months.

This issue includes a report on the RESPECT conference, which is now under the SIGCSE umbrella. There are also calls for participation in this year's ICER and Koli conferences, as well as the call for papers for SIGCSE 2025.

Special features include a SIGCSE speaker fund report, describing an interesting pre-conference workshop.

We are also happy to highlight the work of Monica McGill, who leads a non-profit focused on computer science education, and Emma Hogan, whose work explores how to teach CS to those who are incarcerated.

We encourage you to reach out to the co-editors with any news that you would like to share with the SIGCSE community.

Upcoming Dates and Deadlines

Conference	Location	Dates	Submission Deadline
ITiCSE	Milan, Italy	8 – 10 July 2024 (on-site)	-----
ICER	Melbourne, Australia	9 – 12 Aug 2024 (on-site)	-----
Koli Calling	Koli, Finland	12 – 17 Nov 2024 (on-site/virtual)	20 Sep (posters/demos)
SIGCSE Virtual	online	5 – 7 Dec 2024 (virtual)	-----
SIGCSE TS	Pittsburgh, Pennsylvania	26 Feb – 1 March	14 July (paper abstracts) 21 July (papers) 14 October (posters, etc.)
CompEd	Gabarone, Botswana	21 – 25 October 2025	

Other conferences operate in cooperation with SIGCSE and are posted on the SIGCSE web site at sigcse.org/events/incoop.html.

SIGCSE Speaker Fund Report: Funding for Pre-Conference Workshop at CCSC-CP 2024
By Wen Hsin

On April 5, 2024, the SIGCSE Speaker Fund supported Mr. Carter Zenke of Harvard University and Mr. Charlie Liu of Yale University who conducted a 3-hour pre-conference workshop entitled "Distributing, Collecting, and Autograding Assignments with GitHub Classroom" at the Consortium for Computing Sciences in Colleges – Central Plains Region (CCSC-CP) Conference at Graceland University, Lamoni, Iowa. The presenters shared their knowledge, expertise, and classroom material (CS50 at Harvard) on GitHub Classroom with the audience. There

were about 28 participants in the workshop. Mr. Zenke, Mr. Liu, and other colleagues had previously presented and conducted the workshop at SIGCSE 2023 on March 17, 2023, in Toronto, Canada.

Key takeaways from the workshop included a better understanding of GitHub Classroom's grading facilities, readiness to set up GitHub Classroom, interest in more advanced workshops, and learning about CodeSpace. Participants noted the promising autograding feature for reducing grading load and expressed interest in learning more about GitHub's scope and automation opportunities. Some wished for more coverage on CodeSpace, autograding, test cases, and user interface improvements. Additional comments suggested a desire for a more focused presentation, potentially with two levels (basic and advanced), and praise for the

speakers' expertise. Overall, attendees found the workshop valuable but suggested areas for improvement and expansion.

On behalf of CCSC-CP, we extend our heartfelt appreciation for your invaluable support. Your contribution was instrumental in ensuring the success of the workshop. Your support has a lasting effect, benefiting both educators and paving the path for improved learning experiences for our future students.

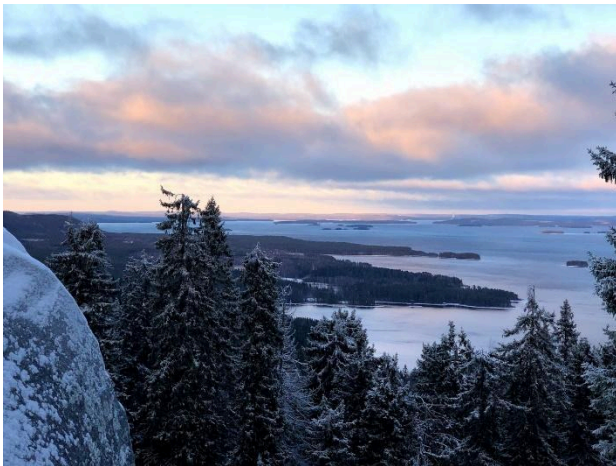## Koli Calling 2024: Call for Participation
By Juho Leinonen

Photo credit: Juho Leinonen

We warmly invite you to attend the 24th Koli Calling International Conference on Computing Education Research (Koli Calling 2024), to be held 14-17 November 2024 in the beautiful Koli National Forest in Eastern Finland. While the submission deadline for full papers and discussion papers has passed, you can still submit posters and demo papers by 20 September 2024.

There will be a pre-conference workshop held in Joensuu, Finland on November 13th, and the Koli Calling Doctoral Consortium will be organized before the conference, November 12th – 13th as an in-person event at Joensuu. The conference itself will begin on November 14th in the afternoon (i.e. one day earlier than usual). There will be an asynchronous online part to offer presenting and discussing your work without traveling to Koli, but we hope to see most of you in-person again where the majority of accepted submissions will be presented. The main conference will be held at the Hotel Koli, located in scenic national park about 60km north of Joensuu, Finland.

Koli Calling is one of the leading international conferences dedicated to the exchange of research and practice relevant to the scholarship of teaching and learning and to education research in the computing disciplines. Koli Calling publishes high-quality papers that combine teaching and learning experiences with solid, theoretically anchored research. Koli Calling is a single-track conference for original and novel work with research, practice and systems presentations as well as a keynote and invited talks. The conference is known for its moderate size, intimate atmosphere, and lively discussions.

We hope that many of you join us at Koli Calling 2024 and help us to make this conference as enjoyable and memorable as in the previous years!

RESPECT 2024: Conference Recap
By Tamara Pearson and Carla Strickland

The Conference on Research in Equity and Sustained Participation in Engineering, Computing, and Technology is the premier venue for research on equity, inclusion, and justice in computing and computing education. RESPECT 2024, the ninth edition of this conference, was held on May 16–17, 2024 at

the Georgia Tech Conference Center and Hotel in Atlanta, Georgia.

This year, RESPECT partnered with the Expanding Computing Education Pathways (ECEP) Alliance, an NSF Broadening Participation in Computing Alliance. The ECEP Alliance hosted the ECEP Datapalooza in collaboration with RESPECT, bringing together teams representing 30 ECEP states and territories focused on establishing common metrics for measuring equitable CS education. The goal of Datapalooza was to support states in utilizing data to guide strategic policy development and evaluation at a state level. Together, RESPECT and Datapalooza welcomed 230 attendees.

In yet another election year and on the 70th anniversary of Brown v. Board of Education, we took the opportunity to focus RESPECT 2024 on interrogating the many ways research and policy inform one another. With a focus on the theme of **Equity-focused CS Education Research: The Reciprocal Influences of Research and Policy**, RESPECT 2024 we discussed ways to move our work out of the shadows and back into the spotlight. The conference program centered its theme in a plenary session featuring renowned scholar and best-selling author Dr. Bettina Love on her work, *Punished for Dreaming: The Case for Abolitionist Teaching and Educational Reparations*, in conversation with Dr. Kamau Bobb. This talk served to immerse RESPECT attendees in equity-centered, thought-provoking reflection to inform and enrich our collective scholarship.

We also felt that the challenges we face as social justice advocates warranted making space for thoughtful, community-building discussions between researchers and K-12 practitioners, including the panels *What Have We Really Done "For All"? The Influence of Data and Research on CS Education Policy and Practice*, moderated by Dr. Joshua Childs

and sponsored by the ECEP Alliance and *Understanding the Impacts of Policy through the Lens of K-12 Practitioners*, moderated by Shaina Glass and sponsored by the Computer Science Teachers Association (CSTA).

As RESPECT has moved from a standalone conference to one of the flagship conferences under the ACM SIGCSE umbrella, it was also time to reflect on the past and plan for what we want RESPECT to be in the future. This conversation, moderated by RESPECT 2024 conference chair, Dr. Tamara Pearson, brought together past RESPECT chairs Dr. Jamie Payton and Dr. Jakita Thomas with ACM SIGCSE liaison Dr. Yolanda Rankin.

There were many ways to contribute to and participate in the RESPECT 2024 program, through research papers, experience reports, and equity and policy perspectives. There were 90 completed submissions–the highest number to date–with many authors new to the RESPECT conference. Each submission was reviewed by at least 3 reviewers. The program committee accepted 46 papers for presentation at the conference, advancing research and practice on equitable and inclusive computing.

The RESPECT conference is an endeavor that takes a village to make happen, and we extend our heartfelt gratitude to the ACM staff, the RESPECT Steering Committee, the Georgia Tech College of Computing events and communications teams, and all of the volunteers for their hard work and guidance. Thank you for serving on committees, reviewing papers, providing feedback, and generally giving of yourself to make this conference happen. Your many, many hours of unpaid labor are greatly appreciated. Finally, we'd like to thank all of this year's attendees. Thank you for coming to Atlanta. Thank you for sharing your research, ideas, and passion for equity, and thank you for continuing, even when challenged, to do the hard work of

making the world a better place. The fight continues!

ICER 2024: Call for Participation
By Paul Denny, Margaret Hamilton, Leo Porter, Briana Morrison, ICER 2024 Chairs

Do you know that the 20th ICER Conference will be happening soon? In Australia?

The ACM Conference on International Computing Education Research (ICER) will be held at Storey Hall in RMIT University right in the centre of Melbourne.

This special 20th anniversary of ICER will include all the usual events such as the Doctoral Consortium, research paper presentations and round table discussions. There will also be lightning talks, poster sessions, and work-in-progress discussions, as well as the Conference Dinner where celebrations of the 20th anniversary are being planned for the Conversation Corner in the Victorian State Library.

The in-person Doctoral Consortium will be on Monday August 12, followed by a Welcome Reception that afternoon for all Conference attendees. The main conference will be held in both face-to-face and hybrid modes over Tuesday 13th - Thursday 15th August 2024.

You can participate physically by traveling to Melbourne or virtually in Discord where there will be an option for online discussions during the conference.

For those of you interested in seeing Australian flora and fauna, there are many places to visit including Melbourne Zoo, Healesville Sanctuary, Werribee Open Range Zoo – please have a look at the many options on https://www.zoo.org.au/. There are also many sights to be seen in central Melbourne in and around RMIT, by catching the free City Circle tram which travels around the city and whose stops include the Melbourne Aquarium and Federation Square. There are many walking tours around Melbourne, and a visit to the Arts Precinct on Southbank is well worthwhile for restaurants, cafes with world class coffee and shows as well as the Art Gallery.

We had a record number of papers submitted (176) and accepted (36) this year, which is quite fitting for the 20th anniversary of the conference! Attendees will be delighted to hear about work on a broad range of topics, including, but not limited to, effective instructional practices, uses of LLMs in CS education, and techniques to broaden participation. There will also be lightning talks and posters, including those from Doctoral Consortium participants, giving the audience a preview of where the field is heading in the years to come.

We anticipate another conference packed with exceptional papers representing the best of computing education research.

Registration closes the 12th of July. Please plan to join us August 13-15, 2024 for another excellent ICER experience.

Please visit https://icer2024.acm.org/ for updates or email site-chairs@icer.acm.org with questions. See you soon!
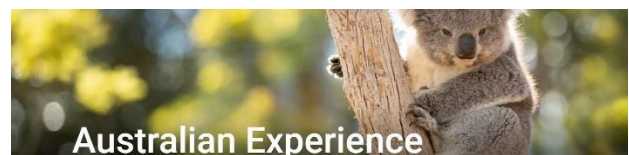
Photo credit: *Zoos Victoria*

SIGCSE Technical Symposium 2025: Call for Submissions

By Libby Shoop, Samuel Rebelsky, and James Prather, SIGCSE TS 2025 Program Co-Chairs

Dates: February 25 to March 1, 2025
Website: https://sigcse2025.sigcse.org

Submissions:
https://easychair.org/my/conference?conf=sigcsets2025
Volunteer to review:
 https://tinyurl.com/review-sigcse25
Deadlines: Sunday, July 14, 2024: Paper Abstracts, Affiliated Events
Sunday, July 21, 2024: Full Papers (abstracts due July 14), Panels, Special Sessions, Tutorials (formerly called Workshops)
Monday, October 14, 2024: Posters, ACM SRC, BoFs, Demos, Lightning Talks, Nifty Assignments

The SIGCSE Technical Symposium (SIGCSE TS) is a forum for educators and researchers to share new results and insights around developing, implementing, or evaluating computing programs, pedagogy, curricula, and courses. The conference will be held in Pittsburgh, Pennsylvania from February 25 to March 1, 2025, mostly in-person with a few limited online participation opportunities available to accommodate a broader range of attendees. Details are available at the conference website:
https://sigcse2025.sigcse.org.

We invite submissions on topics including but not limited to: improved and scalable pedagogies; broadening participation; strengthening diversity, equity, and inclusion; K-12 and novice learners; leveraging data and analytics; peer learning and instruction; novel outreach; events and engagement strategies; involving students in solving social and global challenges; advanced CS topics; and education research – including qualitative and quantitative, instruments, null and negative results. The SIGCSE TS provides many ways to share ideas, including papers, panels, special sessions, tutorials, the ACM Student Research Competition, Birds of a Feather (BoFs), demos, lightning talks, nifty assignments, posters, and pre-symposium events.

Paper submissions must be categorized as either Computing Education Research, Experience Reports and Tools, or Position Papers and Curricular Initiatives. Each category has separate review criteria. Please see the "Choosing a Track" tab of the Papers page on the web site for details on choosing the right track.

We invite colleagues to contribute to, review for, and attend SIGCSE TS 2025. Once accepted submissions are finalized for publication, the proceedings are made available in the ACM Digital Library.

Reviewers needed! Volunteering your expertise to assist with the review process is a great way to get involved with the symposium and to ensure that the reviewing process is fair and informative to authors by giving them useful feedback. We cannot do this without the generous support from the community and we need over 1000 reviewers for a successful and equitable review process. We expect that at least one author of each submission will volunteer to review. To volunteer as a Reviewer or APC for SIGCSE TS 2025, please complete this form as soon as possible: https://tinyurl.com/review-sigcse25. We especially need reviewers for Papers, Posters, ACM SRC, BoFs, Demos, Lightning Talks, and Nifty Assignments.

If you have any questions, please contact us at program@sigcse2025.sigcse.org.

We look forward to a great SIGCSE Technical Symposium 2025!

Member Spotlight: Monica M. McGill
By Julie M. Smith and Charles Wallace, *SIGCSE Bulletin* Co-Editors; Monica M. McGill

Dr. McGill is the founder, president, and CEO of the Institute for Advancing Computing Education.

How did you first get involved with the CS education community?

In 2004, I took a job as a lecturer in the computer science department at a university with limited teaching experience. A few months later, my department chair encouraged me to attend the SIGCSE technical symposium in St. Louis, which was less than a 3 hour drive away from where I live. I did the typical new conference attendee thing, where I signed up for multiple workshops, went to paper presentations all day, and talked to people. That opened my eyes to many things I didn't know about teaching and really piqued my curiosity. I was then encouraged to attend ITiCSE in summer 2005 in Portugal. It was soon thereafter that I started to get involved with the ITiCSE conference committee. It's these two conferences primarily that have led to meeting lots of people who have enhanced both my professional and personal lives, though I now participate in ASEE, FIE, AERA, and so many other opportunities.

Photo credit: Monica McGill

Can you describe some of the ways you have been involved in developing and enhancing computer science education?

After leaving industry, I taught computer science for many years at the postsecondary level--first to students who were non-traditional learners from backgrounds that were atypical of traditional college students. I was impressed

and inspired by young, single moms who were dedicated to improving their situations through education. After, I taught and was tenured at two post-secondary institutions where I wanted to learn how to become a better professor by jumping into education research. Getting my doctorate in education along the way gave me insight into what I was missing in my research and how to improve my teaching. I've wanted to play a small part in changing CS education through my own research and helping other researchers learn what I've learned so far as well as what I have yet to learn. I also think it's critical to conduct research that impacts others, and I've tried to focus on how to get research into the hands of faculty and administrators so they can benefit from the evidence on how to support all students' learning CS.

Where do you think computer science education is headed in the next 5-10 years?

So much to say, so little space. We know that prior experience plays a significant role in who chooses and succeeds in postsecondary CS. Having taught postsecondary CS for over 15 years, I'm amazed how much research is dedicated to CS1 and teaching methods to "fix" it rather than reconsidering that CS1 may be unfixable as it stands. I'm not the first person to note that CS learning opportunities are limited to certain students in certain regions of the United States. It is similar in other countries as well. One of the reasons I've been focusing on K-12 over the last ten years is the opportunity to provide quality computer science education to all students and shift who has prior experience, as well as examining what makes those experiences most impactful. I would imagine that in the future this would also shift who chooses to and succeeds in CS and CS-related fields as well as how the CS knowledge entrusted to all students shifts the many fields that rely on it.

What do you think are the biggest challenges facing the community? What are the biggest

challenges for diversity, equity, and inclusion in CS education today? And what can CS educators do to help encourage diversity?

The rapid changes to computer science have exponentially increased with AI, and with these accelerated changes we remain unprepared to teach CS on ethical, moral, and technical levels. At the same time, there are active socio-political forces that want the balance of power to remain rooted in the hands of those who already have it. They will use any means to attain and keep it (i.e., controlling the AI medium), including attacking efforts to broaden the education of students. It's a story that has been repeated throughout history. And DEI efforts are seen as a threat to the power of balance, despite the fact that strong economies are a direct result of an educated workforce who are paid sufficiently to provide for their families. The biggest challenge we face is understanding and acting upon the fact that we need *all* students to be educated about computer science--both how it works and how it impacts them. K-12 is the doorway for this, but there are ample opportunities for each of us to push against narratives that certain people or groups do not belong in CS or couldn't or shouldn't learn it in postsecondary.

What do you enjoy doing when you are not working?

Plotting. ;-)

Equity Spotlight: Emma Hogan
By Julie M. Smith and Charles Wallace, *SIGCSE Bulletin* Co-Editors; Emma Hogan

Emma Hogan is a Computer Science and Engineering PhD student at UC San Diego and a Ford Foundation Predoctoral Fellow.

You presented a paper at SIGCSE 2024 called [Challenges and Approaches to Teaching CS1 in Prison](#). What led to your interest in researching CS education with incarcerated students?

My grandparents, both of whom immigrated to the US as teenagers and lacked the financial ability to complete their high school education, have shaped my personal views on the importance of education and been an inspiration for my work teaching adults in prison. Both in the US and globally, prison systems often function as propagators of existing inequality, including racial, economic, and educational inequality [1]. I believe that every individual is inherently worthy of pursuing education as a means of self-actualization and fulfilling their potential, and restricting access to educational opportunities as punishment harms all of us — incarcerated individuals, their families, and the societies receiving back the great majority of them upon release. Additionally, we are at a pivotal moment for higher education in prison: recent policy changes have renewed access to federal Pell grant funding for incarcerated people, with an estimated 463,000 incarcerated people newly eligible [2].

Photo credit: David Baillot

What *are* the main challenges of teaching CS1 in prison?

One of the primary challenges of teaching CS1 in prison is students' limited access to resources. For both of our first two iterations of the CS1 course, students have had no access to a code interpreter of any kind, and restricted internet access (i.e., they were able to access Canvas, but no other resources like Youtube, Github, Stack Overflow, etc.). In our SIGCSE paper we detailed strategies we used to mitigate these barriers, such as creating a running list of common errors that made it easier and more efficient to give students feedback on multiple errors in their code in one pass.

Access to resources varies by state and facility, and there is currently positive momentum for building more adequate technology infrastructure in prisons [3]. That being said, progress is slow, and my view is that computing educators should not wait until all students have access to code interpreters and/or the internet in order to start teaching in prisons. Higher education in prisons is expanding, and there are students motivated and capable of learning computing in prisons now. One hope for the impact of this experience report was that it would show that teaching CS1 in prison is not only feasible, but can be largely successful without student access to code interpreters and internet resources.

What's next for this project? What's next for you personally?

We are currently working on analyzing course data from our second iteration of the course in Fall 2023, which includes students' self-reported challenges with using the technology that was available to them (i.e., Canvas). Many students we have had so far have been incarcerated for decades, and have little or no experience with modern technology. We hope to use these findings to guide an intervention for future iterations of our course, which we hope will help make the course more accessible to students with less prior experience with technology. In addition, we are working on incorporating more ideas from culturally

relevant education [4] and computing in context [5] frameworks into our course materials, based on our work appearing in ITiCSE 2024 on identifying potentially meaningful contexts for incarcerated adult students [6].

For me personally, after I finish my PhD, I want to work on building out full CS degree pathways in prison. Latest reports have documented 396 higher education in prison programs in the US, offering 104 Associate's degrees and 38 Bachelor's degrees [7]. To our knowledge, there are currently 0 degrees offered in CS. As we are in this pivotal moment of rebuilding higher education in prison programs, we need to acknowledge and work on the underlying issues that have sustained this near complete absence of STEM opportunities for incarcerated college students [8]. I hope to be able to continue this work in academia, where I can continue to both research and teach CS in prison and on a main campus.

What, if anything, did you learn from this project that might be of use to those teaching CS1 in other contexts?

Incarcerated students are significantly more diverse in terms of age, race, socio-economic status, and prior experience with technology than CS students on main campus. I see great potential for this work to not only highlight the experiences of CS students in prison, but diverse and nontraditional CS students in other contexts as well. For example, much of our work on incorporating culturally-relevant material and practices into our CS courses in the prison will be intended to serve a larger audience of CS students outside of prison as well. In addition, we have learned a great deal about what types of CS1 course policies we have traditionally implemented on main campus that don't serve the needs of adult students, drawing on existing andragogy theory [9] and student feedback to reshape these policies. This contributes not only to improving CS education in prison, but to emerging work on broadening participation amongst adult learners in computing [10].

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