Service Statement

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1 Department Service

I am always passionate about department services as opportunities to make positive impact on the culture and discipline of the CS department and to help the department grow. In the past years, I have served on multiple department service committees, including undergraduate study (2018.9–2019.6), faculty recruiting (2019.9–2020.6 and 2021.9–2024.6), CS CARES (2020.9–2023.6), and CS advisory (2020.9–2022.6).

Faculty Recruiting. I served on the Faculty Recruiting Committee for four years in total. The committee is responsible for recruiting new faculty members for the Computer Science (CS) department, including tenure-track assistant professors and tenured faculty (e.g., the Grainger Engineering Breakthroughs Initiative chairs). I enjoy and value this service: (1) it is a critical step for the growth of the department; (2) it is an invaluable opportunity to discuss and shape the department's culture and long-term strategies for education and research; and (3) it is a great platform to present and showcase the department to the candidates who are future colleagues within and outside the department. Therefore, I have actively participated in the discussion and decision-making. My work mainly includes:

- working with my research area (Systems and Networking) to make recruiting plans;
- presenting the Systems and Networking candidates to the recruiting committee and CS faculty;
- discussing and voting for interviews/offers in weekly recruiting committee meetings;
- advertising, hosting, and participating in faculty interviews.

Our recruiting in the past five years has been phenomenal. We recruited 50 new faculty members (including teaching faculty) in total. In the year 2020 alone, we did 50 interviews and recruited 18 new faculty members, resulting in one of the biggest growth years. For the Systems and Networking area, we have recruited nine new faculty members, covering important and emerging topics such as storage and file systems, mobile and wireless systems, machine learning and AI systems, database systems, blockchain systems, etc.

A key challenge of faculty recruiting is to accommodate the growth of the CS department—the large number of interviews requires more agile and effective practice without losing engagement. With the scale of the CS department, it is no longer feasible for the entire faculty to attend every interview. My practice is to ensure the key faculty with research related to the candidate to be well involved in the interview through proactive planning and careful scheduling. In this way, the candidates can be thoroughly evaluated by experts and close colleagues. To ensure engagement, I encourage graduate students to actively participate in faculty job talks, which not only leads to engaging discussions but also prepares our own students (they will soon go on the job market and give job talks). Another key challenge is to balance different opinions. I try to develop an open-minded culture and a practice of looking at essential qualities and potential of growth. In the future, I would like to carry my experience and continue helping faculty recruiting.

CS CARES. I served on the CS CARES Committee from Fall 2020 to Spring 2022. CS CARES is a new service. Its role is to serve as a resource to help people who are concerned about or experience a potential violation of the CS Values and Code of Conduct. The committee members can be a sounding board for such concerns and can provide advice on the next steps to address the problems. This is the first CARES committee in an academic department at any university. My work includes:

- discussing CARES related issues in bi-weekly committee meetings—one major focus at the time was to discuss how to run CS CARES services (as this is the first departmental CARES committee) and how to outreach faculty, staff, and students;
- holding bi-weekly office hours (on Zoom during the pandemic).

I am very passionate about CS CARES. I believe that it is an essential service to ensure that all the members of the CS department adhere to our values and our culture. I am proud of the committee and the services.

In fact, I have heard from my colleagues from other departments, both within and outside the University of Illinois, to start such a CARES committee. I hope that through our work and experience, we can serve as the right example to run department-level CARES services—every department should have a CARES committee. Although I am no longer on the CARES committee, I view myself as a part (or an extension) of CS CARES and actively connect students and colleagues to CARES whenever they need help.

CS Advisory. I have been serving on the CS Advisory Committee since Fall 2020. The advisory committee is an elected committee of the department faculty and advises the department head on department policies and procedures, strategic considerations, as well as provides oversight of the budget. Many of the discussions in the past year focused on school planning—how can the CS department transition to a school while keeping our core values, collaborative culture, and high quality of faculty and students? My work is mainly about participating in discussions at bi-weekly CS advisory meetings. As a junior faculty, the CS advisory committee is more a learning opportunity than a service. The CS advisory meeting is always an eye-opening experience—I have been exposed to many important department policies, strategies, and problems. I try to learn as much as I can and contribute to discussion and decision-making.

Undergraduate Study. I served on the Undergraduate Study Committee in my first year as a CS faculty (Fall 2018 to Spring 2019). I was unable to contribute much due to my lack of understanding and experience in undergraduate teaching and education (I was new to the department and was not teaching undergraduate courses). The committee helped me understand many aspects of our undergraduate teaching system, especially the undergraduate colloquium. With accumulated experience of undergraduate teaching and mentoring, I hope to serve again in the future and contribute more to undergraduate study.

2 External Service

I always enjoy external services to help research communities and grow important research areas. In addition to serving program committees for flagship conferences and workshops of my research communities (such as SOSP, OSDI, HotOS, EuroSys, and USENIX ATC) and related communities (such as NSDI, MobiSys, ICSE, SIGMETRICS, and DSN), I also actively participate in organizing conferences/workshops (including SOSP and EuroSys). Furthermore, I have been serving as an editor for the blog service of SIGOPS (ACM Special Interest Group in Operating Systems) and as an area chair of the Journal of Systems Research.

SOSP Virtual Conference Chair. I served as a Virtual Conference Chair for the ACM Symposium on Operating Systems Principles (SOSP) in 2021, together with Vijay Chidambaram from the University of Texas and Jialin Li from the National University of Singapore. SOSP is the premier conference of computer systems research. SOSP-2021 was planned to be held in Koblenz, Germany; however, due to the COVID-19 pandemic, the SIGOPS community decided to change it to an online conference. We started to prepare the virtual conference after the SOSP submission deadline (May 7, 2021), with the goal of making an engaging, inclusive, and accessible online conference. We started from discussing our experience of previous online conferences and summarizing the success and failure lessons. We then organize the virtual conference with the following principles:

- minimizing the conferencing tools needed and the overhead of context switch between platforms,
- covering the other parts of the world besides the US (Europe, Asia, and Australia),
- focusing on engagement and live discussion to provide a real conferencing experience.

The online SOSP conference was a great success. We were able to make the conference highly accessible and affordable to students. The conference was free for ACM or SIGOPS student members (the annual SIGOPS student member fee was only $5). In total, the conference was attended by a record-high 895 online attendees from all over the world, including 569 students. We ran two mirrors of the SOSP conference, covering the time zones of US/Europe and Asia/Austria. The University of Illinois had a great presence at SOSP 2022. Many graduate students helped organize and operate the conference: Lilia Tang and Jinghao Jia co-chaired the Audio/Video on Zoom, Xudong Sun co-chaired the Hallway Discussion, Siyuan Chai, Parth Thakkar, and Yinfang Chen co-chaired Slack (for announcement and offline discussion), and Tyler Gu co-chaired the Gather.town based poster sessions and student research competition.

EuroSys Sponsorship Chair. I served as a Sponsorship Chair for the ACM European Conference on Computer Systems (EuroSys) in 2021, together with Tudor David from Oracle and Amitabha Roy from Google. EuroSys is a premier computer systems conference organized by the SIGOPS European Chapter. EuroSys-2021 was also online due to the COVID-19 pandemic. My work included outreaching potential sponsors, working on sponsorship levels and payment, and helping sponsor setups on virtual platforms.

The fundraising was a great success. We raised 95,000 USD in total from 13 companies, based on which EuroSys-2021 was made a free conference for everyone. EuroSys-2021 was attended by a record-high 1,650+ attendees from all over the world, including 46% students, 22% academia, and 27% industry attendees. The majority of funding were rolled to help EuroSys-2022.

SIGOPS Blog Editor. I have served as a main editor of the SIGOPS Blog (https://www.sigops.org/blog/) since November 2020. I value a community blog service which allows the community to openly share research experiences, practices, backstories, and viewpoints. In the past three years, we have published blog articles on a monthly basis. Those blog articles include practice sharing for building reproducible research artifacts and results, retrospectives of Hall-of-Fame papers and Award-winning dissertations, highlights of recent systems research, and viewpoints on improving paper review process, etc. The articles are well received by the community. For example, the blog series "How Are Award-winning Systems Research Artifacts Prepared" has been constantly referenced in guidance and tutorials on artifact evaluation. We plan to enlarge the editorial team to produce more valuable articles and to publish at a faster pace.

Area Chair of Journal of Systems Research. I also served as an Area Chair on "Configuration Management for Systems" for the Journal of Systems Research (JSys), together with Pooyan Jamshidi from the University of South Carolina. JSys is a diamond open-access journal for the computer systems community. The editorial board is organized based on research areas. The area chairs are responsible for developing the reviewer team which makes reviewing decisions in that area.

Since configuration management is one of my research focuses (see my Research Statement), I view the service as an opportunity to grow the research community around this important topic and accelerate the research progress. I developed a strong team of nine expert reviewers. The reviewer team consists of both academic researchers and industry practitioners to cover theory and practice.

Program Committee and Journal Reviewer. I have served on Program Committees (PCs) of major computer systems conferences and workshops, both within and outside my home research community (SIGOPS). For SIGOPS conferences and workshops, I served as PC members of the 2023 and 2020 USENIX Symposium on Operating Systems Design and Implementation (OSDI), the 2019 ACM Symposium on Operating Systems Principles (SOSP), the 2024 European Computer Systems Conference (EuroSys), the 2024 USENIX Annual Technical Conference (USENIX ATC), the 2021 Workshop on Hot Topics in Operating Systems (HotOS), the 2019 ACM Asia-Pacific Workshop on Systems (APSys 2019), the 2023 SOSP Doctoral Workshop (EuroSys DW), the 2018 EuroSys Doctoral Workshop (EuroSys DW), the 2023 and 2017 SOSP Student Research Competition (SOSP SRC), etc. For each conference/workshop, my work includes paper reviews, online discussions, and PC meetings. I try my best to attend these conferences to engage with the communities, especially students (conference experience is often challenging but important for students).

I also served on Program Committee for conferences closely related to computer systems research, including the 2023 USENIX Symposium on Networked Systems Design and Implementation (NSDI), the 2023 and 2021 International Conference on Measurement and Modeling of Computer Systems (SIGMETRICS), the 2023 IEEE/IFIP International Conference on Dependable Systems and Networks (DSN), the 2021 International Conference on Software Engineering (ICSE), the 2019 International Conference on Mobile Systems, Applications, and Services (MobiSys), and the 2018/2019/2020 International Workshop on Edge Systems, Analytics and Networking (EdgeSys). I see the importance of sharing my knowledge and expertise with closely related research communities and broadening the scope of computer systems research.

Additionally, I reviewed many manuscripts for academic journals and transactions whenever I find my expertise helpful, including IEEE Transactions on Computers, on Cloud Computing, on Software Engineering, on Reliability, on Parallel and Distributed Systems, Elsevier Journal of Reliability Engineering and System Safety, Springer Journal of Cloud Computing, etc.