SERVICE STATEMENT

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I pursue a measured approach to professional service. I engage actively when there is an opportunity for impact but ignore requests that might consume time and energy better devoted to research and teaching. Below I describe my service activities both outside and inside my department. Departmental service activities related to course and curriculum development are described in more detail in my teaching statement.

1 — PROFESSIONAL SERVICE

When choosing activities outside my department I identify professional development opportunities that improve the visibility of my group and university.

1.1 — Reviewing and Editing

I am active as a reviewer for the top conferences and workshops in mobile systems and sensor networking. These include SenSys (2016, 2013, 2012, 2011), MobiSys (2016, 2014), IPSN (2017, 2015), MobiCASE (2016), HotMobile (2016) and EWSN (2013). These conferences and workshops are highly-selective, single-track, and considered top-tier by researchers working in mobile and embedded systems. I was the first UB faculty member to be invited to serve on each of these program committees. My participation provides visibility for my department and an opportunity for me to meet top researchers. It also ensures that my group is exposed to the latest research in our area. I regularly distribute papers assigned to me to my students. While I write my reviews independently, this experience allows them to see the quality of the work submitted to top conferences and practice their reviewing and critical analysis skills. I also am well-known within the research community for my practice of signing reviews that would normally be submitted anonymously. I strongly believe that this produces better reviews and a more accountable reviewing process.

I have reviewed for journals including ACM Transactions on Sensor Networks, IEEE/ACM Transactions on Networking, and IEEE Transactions on Mobile Computing. However, when compared to conferences, journals in my area neither present novel research results nor provide an opportunity to interact with other researchers. As a result, I have begun to decline journal review requests to preserve time for other activities.

In 2015 I began editing a column for GetMobile Magazine, the quarterly publication of the ACM Special Interest Group on Mobility of Systems, Users, Data and Computing (SIGMOBILE). My goal as editor is to help present research results in a more readable and approachable format. My column has published several articles and provided an opportunity to work with top researchers in mobile systems.

1.2 — Meeting and Invitations

As the result of my research activities I have also had the chance to represent UB at a number of professional meetings. I have attended two Google Faculty Summits (2011, 2015), small invitation-only events attracting top computer science researchers. These provide the chance to learn more about Google technologies while also meeting other top faculty in my area. In December, 2013, I attended the SmartAmerica Challenge kickoff meeting at the White House complex in Washington, DC, representing the PHONELAB testbed and my research group. The SmartAmerica challenge was a White House-sponsored event organized by the Presidential Innovation Fellows. The goal was to demonstrate the power of cyberphysical systems (CPS) through collaboration between partners with existing CPS building blocks. At the meeting I had the chance to meet the directors of several federal agencies, NSF Program Directors, and industry representatives. I also took the opportunity to present our work on using smartphones to survive natural disasters.

2 — DEPARTMENTAL SERVICE

3 — DEPARTMENTAL SERVICE

When choosing service activities inside my department I focus on opportunities to bring about meaningful improvements to teaching and diversity.

3.1 — Committee Service

When serving on and leading departmental committees, I utilize the tools of our discipline to make our committees more efficient, open, and collaborative.

CS Curriculum and Introductory Course Subcommittees: Recently I led the process of revising our CS curriculum and have taken a leadership role in designing new introductory programming courses. My work on these committees is described in more detail in my teaching statement. In both cases I helped engage undergraduates in the process, and in both cases we benefited from their input.

Undergraduate Affairs Committee (UGAC): I have served on the UGAC since my faculty appointment began. During that time I have engaged actively in discussions surrounding enrollment, diversity, accreditation, and curricula. Using data provided by university databases, I studied our enrollment trends and failure to achieve gender diversity. As part of my leadership of the UGAC CS Curriculum Subcommittee I performed a curricular comparison with other peer institutions. Committee members coded the curricula used by multiple other schools to perform an apples-to-apples comparison. During our last round of ABET accreditation, I was instrumental in suggesting that we use standard online collaboration tools to collect the required data. This simplified the process of coordinating the multiple participating faculty members.

Faculty Search Committee: I have served on the faculty search committee multiple times. Each year I have compiled a shared online document allowing all department faculty to engage in the process of evaluating faculty applications. This makes the process much more open and effective. I have also hosted several faculty candidates and encourage talented mobile systems colleagues to apply for jobs at UB.

Graduate Admissions Committee: I have participated in the yearly process of graduate admissions in multiple capacities, both on and off the committee. Unfortunately, the many weaknesses of our admissions tools makes reviewing graduate applications both tedious and unnecessarily difficult. Happily, after years of organizing and delivering complaints, work is beginning on improving the process.

3.2 — Community Building

I am committed to making the department a vibrant creative space promoting faculty and student interaction. Atri Rudra and I established a departmental coffee area featuring both drip and espresso machines. This provides both a place for spontaneous faculty brainstorming and the requisite levels of caffeine computer scientists require to function. I organize the popular weekly young faculty lunch, which provides junior faculty the chance to engage in discussion and get to know each other. I also organize a weekly systems seminar which attracts students and faculty engaged in multiple areas of systems research. Students give conference practice talks and we discuss recent interesting papers and hold brainstorming sessions.

Since 2012 I have served as one of the faculty advisers for the UB Association of Computing Machinery (ACM) Student Chapter. I have participated in and judged their popular hackathon. In 2014 I initiated the creation of a local chapter of the Scientista Foundation, an organization dedicated to increasing female participation in STEM. Our chapter is focused on computer science and has held a series of successful events over the past two years. I also serve as the faculty adviser for our Scientista Chapter.

In 2014 I organized the creation of a mural within the department to celebrate diversity within computer science. After raising over $1500 from my colleagues, we held a student design competition. The winning submission was an iconic photo of Grace Hopper working on COBOL. It was installed on the wall outside Davis 301B by local artist Max Collins.

Finally, I created a new departmental Faculty Choice Award that has been given by the CSE faculty for the past two years. It recognizes a graduating senior who has been a vital presence in the department and who will be missed by the faculty. Faculty donations provide a generous financial gift for the recipient. The award was won by Nick DiRienzo in 2015 and by Wendy Jansson in 2016.