Sauvik Das
Teaching Statement

I hope to continue teaching, in some capacity, for the rest of my career. I began early: My senior year of high school. As an advanced student in AP Computer Science, I was tasked with mentoring underclassmen in earlier courses. Helping younger students understand foundational concepts in computing, like recursion, was inspiring. It helped me solidify my own knowledge of these concepts and motivated me to further my own studies so that I could continue to be of service. These formative experiences helped pave my path to academia: I say with sincerity that **teaching is a large part of why I would like to be faculty**. Teaching, however, can be a nebulous term. When I think of teaching as faculty, two initiatives stand out: classroom teaching and research mentorship. I have experience with both.

Classroom Lecture Experience

During my undergraduate studies at Georgia Tech, I took the first opportunity available to become a teaching assistant. So, as a sophomore, I took on my first teaching position as an instructional TA for the "Data Structures and Algorithms" course. I was next a TA for a project-based course on object-oriented programming. I have also twice instructed a graduate course on how to develop Android applications as a graduate student at CMU. I taught weekly lectures on wide-ranging topics from understanding basic event loops, to signal processing to security and privacy in the age of ubiquitous computing. In addition, I wrote all of the projects.

These experiences have distilled into two keystones that make up my teaching philosophy: be the rubber duck, and align course objectives with each student's critical path. In short, I believe it is important to provide students a solid foundation through classroom lectures, but to also afford students the flexibility to grow from that foundation in their own way. Accordingly, I like to provide students with many hands-on work sessions and allow students to self-define final capstone projects.

In doing so, I found that students would often align their own out-of-class objectives and interests with their in-class projects, kindling a virtuous cycle of learning and enjoyment that fueled truly impressive results (e.g., one of my students developed an IoT lighting regulation system to save energy). While affording students this flexibility meant that I could not always "solve" their problems, students would come to me with questions that they would solve themselves just by explaining the problem. I seek to cultivate these moments of "rubber duck" insight.

Research Mentorship

My teaching experience extends beyond the classroom. I have also been a research adviser to 10 undergraduate and master's students throughout my Ph.D. These advisory roles have resulted in two conference publications at CHI and SOUPS. One of these papers won an honorable mention for best paper at CHI 2016. I also have plans to submit at least two additional papers with my students.

A personal goal of mine is to cultivate students' research interests and to develop their research skill sets. Doing so takes time, so I try to encourage longitudinal collaborations with students. Accordingly, nearly all of the students I have worked with have continued to work with for me more than one semester. Three, in particular, I have worked with for over a year and a half.

Finally, I am committed to diversity and outreach. Four of the students I have worked with are women, and many of my students come from a wide range of disciplines across the computer, social and information sciences.

Future Teaching Agenda

As faculty, I look forward to continuing my growth as a teacher. I have a broad sampling of experience within Computer Science that allow me to teach a wide spectrum of possible courses at all levels, including: Intro to Human-Computer Interaction, Data Structures and Algorithms, Statistics for HCI, Data Science, Applied Machine Learning, User Interface Programming and Usable Security and Privacy.

It will also be a goal of mine to run an inclusive research group that encourages participation from women and underrepresented minorities spanning a range of backgrounds and interests.

Ultimately, I believe that a career in academia brings with it a lifetime commitment to teaching. I gladly make that commitment.

4 courses instructed

Fall 2007 GT CS1332	Data structures & algorithms
Spring 2008 GT CS2340	Objects & design
Fall 2012, 2013 CMU 05-4/633	Software Structures for User Interfaces: Mobile Lab

10 students mentored

4 papers accepted or in-progress (1 award)

3 students mentored for over 2 years.

Students from CS, decision science, HCI and electrical engineering.

Teaching Areas

HCI   Usable Security

Social Computing

Privacy   Mobile Apps

UI Design/Prototyping

Applied Stats / ML