TEACHING STATEMENT

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I always believe that a good researcher must be equipped with good communication and teaching skills. Our research ideas can gain more impact if they can be presented in a vivid and logic way, and new research ideas are more likely to be sparked if the idea can be expressively communicated. Therefore, during my study of building my own knowledge system, I was always intentionally training my capability of articulating a knowledge system in a logical way, which prepare me as good candidate of teacher in this field.

In my Ph.D. and postdoctoral training, I have witnessed and even worked with many excellent professors who are both good researcher and teacher, including Prof. Jens Palsberg (in UCLA), Prof. Dong, Jinsong (in NUS), Prof. Sun, Jun (in SUTD), etc. I will actively learn from them and devote myself to serve my students. In the following, I will briefly describe my teaching interest and philosophy.

Teaching Experience. I worked as a teaching assistant (TA) when I was a graduate student in Fudan University. In that duration, I helped design the course project, gave project tutorials, as well as scored the course tests. The TA experience equipped me with a good sense of course design. Moreover, I enriched my experience of supervising students during my postdoctoral training. Under the supervision of Prof. Dong, Jinsong in NUS, I was responsible for supervising both undergraduate and master students to accomplish their course projects. In addition, with the cooperation with Prof. Sun, Jun at SUTD, I help supervised two students transferred from Fudan University and Zhejiang University. One work has been accepted by ICSE'18 and the other work is under the review of TSE. The experience of supervising students allows me to better understand time management of the whole team, which well prepares me for a faulty job.

Teaching Interests. My academic background in computer science (Ph.D.) and software engineering (BSc.) enables me to teach a wide range of core undergraduate courses, including but not limited to Programming Languages, Data Structures, Algorithms, Operating Systems, Computer Networks, Databases, Digital Logic, Computer Organization and Architecture, Discrete Mathematics, Data Mining, and Machine Learning. Given my research background, I am well equipped to teach advanced courses about Software Engineering, and Object-Oriented Design and Programming Analysis. Furthermore, the broad range of research experience I had over the years allow me to develop courses and organize advanced seminars in these areas. Specifically, I have plans to design and teach special topic courses on Software Engineering, and Object-Oriented Design and Programming Analysis. In addition to teaching, I would passionately involve in student mentorship programs for both undergraduate and graduate students.

Teaching Philosophy.

- *Practice makes perfect.* Computer science is a practical subject, which means students cannot master the skills and gain deep insights into the problems unless they get their hands dirty. Therefore, my classes will be project-oriented. Students will be assigned carefully designed and related projects. Moreover, from software engineering point of view, the students will learn how to cooperate with each other by using latest version control system and wiki documents.
- *Classical knowledge along with latest research.* In addition to teaching the classic theory and approach, I will also teach the latest research work in the same line with the content in textbook. I will carefully explain the rationales behind the classical theory and approach, and how they evolve to new research. By understanding the causalities of classical theory and new research, the students are not only the passive learner, but the active observer or even creator.
- *Time for contemplation and debate.* Many computer science protocols and designs are based on trade-off, for example, the sorting algorithm trades space for time or vice versa; many classical program analysis algorithm trade precisions for efficiency. In my class, I will also leave time for students to think about and debate the design of classical algorithm. Their debate can also go beyond right and wrong. I believe the Socratic style of thinking can also help them gain more mature thoughts, not only in class but in life as well.

To conclude, as a faculty member and an educator, I am passionate about teaching and mentoring students. I am interested in teaching all levels of undergraduate and graduate courses and am ready to serve the department and help my colleagues by teaching courses out of my "comfort zone". I believe my individual abilities, extensive experiences, communication skills, and determination to teach well will make me a qualified teacher.