Graduate Mentoring Statement
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I have learned that the best way to advise graduate students is to listen to them and learn from them to foster passion into their career path. The following short paragraphs summarize my philosophy and approach to graduate training, developed since 2005 by working with wonderful students.

Starting from the day one, for a new graduate student, I tell them “first, don’t fully trust other senior researchers’ statements, including me, unless you witnessed evidence or proofs; and second, there is always an improvement or a new way to achieve the goal of a given solution and your job is to find it out”. While doing research, I encourage all of my students to take a rigorous set of courses, from a broad assortment of departments to build up a solid foundation. I work with students to develop thinking, technical, analytical, writing and presenting skills. Besides scientific research articles, and I gradually involve them into writing research proposals, from background research to proposing new scientific solutions so that they are more than ready for either a job or a post-doc when they graduate. Several critical mentoring strategies and elements are described below.

Each student is unique. Each student has his or her strengths, weaknesses, talents, and peculiarities. My approach is observing and identifying where the students are scientifically, academically, and emotionally, and I meet them where they are. It is then my job to help them develop their skills and maturity so that they can succeed. For example, when dealing with a research problem, it is very critical to find the “rhythm” for each student in terms of research background study, identifying problem statements, proposing new approaches, validation and. I spent most of my time at the beginning, to help students develop schedules, goals, and approaches that are appropriate for them. Moreover, to help them transit from a novice to a more capable researcher, I usually take a show and tell approach at the beginning and then gradually reduce my involvement in the research scheme development and put more effort on quality control and long-term research strategy development.

Develop their passions and achieve their goals. To understand students’ weaknesses is the best way to help them develop their passions and achieve their goals. Academically, students may be more system/hands-on oriented, and others may be more theory-focused. It is my job to push them out of their current comfort zone to build a more balanced research foundation, and at the meantime, to get them more interests into their involved research areas. Note that not every PhD graduate student will go on to prestigious faculty position that reflect favorably on the advisor and department that provided the training. I recognize their potentials and try to motivate and help students develop their own passions and career goals and then work to help prepare them for the long-term career track that interests them.

Researcher vs. Educator – they are equally important. I truly believe that a good researcher is also usually a good educator. Proficient communication and presentation skill are most important characteristics to be a good researcher. Good research approaches are usually originated from organizing and explaining basic concepts. I require each of my senior PhD students should have experience in serving as a teaching assistant or giving lectures under my supervision in my class. Some of my students are interested in training undergraduates, e.g., guiding capstone teams, and they heavily involved to discuss and guide research projects,
monitor the progress of the project, and train undergraduates in research skills, analysis, presentations, and writing.

**Integrity.** I treat integrity as the top criterion to evaluate students’ performance. I require all my students to do a thorough literature review, perform comparative studies, conduct verifiable experiments and evaluation to make sure the authenticity of the produced work, and always cite and acknowledge the original of the related work.

**Friends/Family.** I value my students as people, colleagues, and friends. We are very informal and try to cultivate a feeling of the lab as a comfortable port in the storm of the campus. We organize at least twice a year picnic or getting together events. Every week, we bring food to our regular group meeting and share experience gained outside of the school. We celebrate each student’s achievement. New students learn from senior students and are then prepared to help train the next cohort of new students. As with parenting, I have to be tough when necessary, but fortunately, those times have been very few. I had been outreached to my former students whenever I can, e.g., travel to their cities for conference, and show their current status to my current students and linked them through social network applications. The family ties remain strong among all of us, even after decades have passed and thousands of miles separate us.

I am fortunate to have advised many successful graduate students. So far, more than graduate students have been supervised by me including 25 MS graduates and 10 PhD graduates. For MS graduates they started their jobs at various level of software engineers and system architects. Notably, there are two of them continued as PhD students in my research group. For PhD graduates, they started their diversified careers such as cybersecurity architects and research scientists in Fortune Global 500, researchers in both industry and federal research labs, assistant professors in universities, and entrepreneurs.

I recommend students who are highly self-motivated and interested in Computer Science to contact me and see if you would like to join my Research Family.