

Professional Statement Assignment Sheet

Paragraph One:

My interest in Information Networking is High Performance Computer Architecture. This is the main reason to pursue a master degree. I have worked toward this goal by leading Purdue ACCESS (Analysis of Code on Cloud as an Educational Service to Students) research team, serving as an undergraduate research assistant in several projects, and using four years to get both Computer Engineering and Mathematics majors.

Paragraph Two:

The leadership experience in the Purdue ACCESS research team and non-academic life also supports me to pursue master's degree successfully. I worked with Prof. Yung-Hsiang Lu to lead a ten-person team. Professor Lu teaches sophomore year level advanced C course, he found so many students were willing to learn but still could not pass this course. So he started this project. After analysis, we find that installing, updating, configuring, learning, and running these tools can be an unnecessary burden to students. Moreover, instructors do not have detailed knowledge about students' learning experience before programming assignments are submitted. So I lead our team to build an online programming system that integrated programming tools like Gcov[2], Gprofile[3], Gdb[4], and Valgrind[5]. Students can use them with just one click. Also this system can automatically analyze students' programs and provides insightful information about their code. This system records every syntax and run-time error so that an instructor can obtain real-time view of students' activities and progress. The system starts to be used in Purdue advanced C course in summer semester 2016. Based on the results of the summer usage, I submitted a paper to one of the Computer Science education conferences as first author. The system right now is being used by Purdue fall semester 2016 Data Structure course students. Another experience enhancing my leadership capability a lot is that I serve as Purdue table tennis team president. We represent Purdue to participate in NCTTA (National Collegiate Table Tennis Association). I am responsible for recruiting new members for Purdue, organizing trials, and communicating with Purdue office of sports administration and NCTTA officers. The best achievement we have is entering mid region tournaments. We are aiming towards national tournament in this season. For other research experience, I got accepted in both DURi (Discovery Park Undergraduate Research Internship) in my sophomore year and SURF (Summer Undergraduate Research Fellowships) program in my junior year. For DURi program, because there are so many diabetic retinopathy patients in the world lacking an effective way to diagnose them quickly and precisely, I worked with Prof. Raji Sundararajan to write a MATLAB program to diagnose diabetic retinopathy images. Based on the results, we developed an Android App which can take and diagnose diabetic retinopathy images and give the feedback to the patients. For SURF, I published a nanoHUB tool as the first author [1], which performs model selection by using Gaussian Mixture Models and parallel computing. This work is funded by the National Science Foundation.

Paragraph Three:

One lacking area is the kind of low GPA 3.6 to apply for top master's degree. One of the reasons is that I pursuing dual majors, Computer Engineering and Mathematics-Computer Science in eight semesters. So, the plan in each semester is always ambitious. Moreover, I do not think the GPA is of most significance during college life. Several research experiences like DURi and fellowship have been taken also, which can make my academic background solid. Considering more experiences in real life, I served as a teaching assistance for engineering courses and summer intern in Siemens. Nevertheless, being more efficient will always become the best way to get hang of everything.

Paragraph Four:

To recapitulate, the leadership experience helps me to communicate well with research teammates. Research and fellowship experience give me the basic knowledge about how research works. Strong academic background provides me the chance to move the research project forward. Purdue Table Tennis team experience shows that I may serve as an athlete also for other universities. To recapitulate, based on the experiences, I can successfully obtain the master's degree.