ROSE-HULMAN
INSTITUTE OF TECHNOLOGY
DEPARTMENT OF COMPUTER SCIENCE
AND SOFTWARE ENGINEERING

I am delighted to recommend Qiuyun Li for admission to your graduate program.

For 21 years, US News and World Report has rated Rose-Hulman #1 among undergraduate engineering colleges that do not grant PhDs. As a result, most of our students are excellent. Each year we graduate about 110 seniors in Computer Science and Software Engineering (CSSE). In a typical year, we have three or four students who especially stand out, even among such an accomplished group. In my opinion, Qiuyun is one of that "best of the best" group in the 2019-20 graduating class.

I first met Qiuyun in the winter quarter of the 2017-18 academic year. She has been my student in two courses:
- CSSE 230: Data Structures and Algorithm Analysis
- CSSE 304: Programming Language Concepts

In terms of course average, Qiuyun was the second-best student in each of these classes. Class participation did not formally count toward the grade in either class, but if it had, she would have been #1 in both.

When Qiuyun registered for my CSSE230 class, I saw that she was a chemical engineering major, and I figured that she would squeeze in a few computer science courses, or perhaps even go for a CS minor. I was surprised to learn that she was working on a double major in ChE and CS. The ChE degree requirements leave little flexibility for elective courses. So the double degree is only possible because of Qiuyun's many transfer credits, credits by exam, and terms in which she overloaded, taking an extra four-credit course. She has worked very hard to do this and has maintained a near-perfect GPA.

Ever since my first class experience with her, Qiuyun has been at the top of my list of preferred teaching assistants, including the two courses she took from me as well as Design and Analysis of Algorithms, for which her instructor gave me a very positive recommendation. We try to hire students who have Federal work/study funds, but in Qiuyun's case, we definitely want to hire her repeatedly despite not having work/study eligibility. She has done an especially good for me as a grader for the 304 class.

I so much want her as one of the TAs when I teach 3 sections of the 474 course in the spring quarter that in August I asked her to be a TA for that course which begins in March, wanting to avoid having another faculty member "steal" her. I am thankful that she said yes.

Unfortunately, I have no direct experience with research that Qiuyun has done; I expect that other recommenders, especially Manda Riehl from the Rose-Hulman mathematics department will address that. I am confident that she has the ability and background needed to conduct high-level research.

The particular classes that Qiuyun took with me have substantial group projects. At the end of each project, I ask team members to evaluate their partners. Here are the comments about Quiyun from those surveys.

- By far the smartest person on our team, had the best understanding of the concepts that we were working with. Helped us make our solutions more robust and work in situations I didn't even think of.
- She is a good partner willing to participate in the project. She does not speak a lot but she listens to my ideas and willing to share her ideas. She is also willing to tell me her schedule so we could arrange our time on the project. If she would be busy before the due dates, she generally asked me to start early. She is also a very clever person who enlightened me a lot during the project. The only thing I hoped she could do better is that I would like her to speak more. Sometimes I felt it was just me speak a lot. Overall, I would be happy if she will be my partner again.

Qiuyun is indeed quiet, but she is brilliant, dependable, honest, and amazingly fast at getting things done. Her code is always correct and high-quality.

While Qiuyun applied for your Master's degree program, she is definitely capable of doing PhD work. I expect that once she gets a taste of graduate work, she will want to complete a PhD.

Neither Qiuyun's written nor spoken English is outstanding, but they are quite understandable, and have improved in the two years that I have known her. When she has been a TA for my courses, I have never had a student complain that they could not understand her. And believe me, they do complain when that happens!

This year two students from Rose-Hulman asked me to write recommendations to your university. Both are so good that I'd be at a loss if I were asked to rank them. The reason I mention this is that I am saying some similar things in their letters. This is because many aspects of my experiences with them are similar. I hope and expect that both of them will be invited to join outstanding graduate programs.

I strongly recommend Qiuyun Li, with no reservations at all.

Claude Anderson
Professor of Computer Science and Software Engineering
anderson@rose-hulman.edu   812-877-8331