1. Your interest in the program

Some prompting questions to ask yourself include:

- What problem do you want to solve? How do you know it's a problem? What have you learned about it over time?
- What is drawing you to this program? What makes this a good next step for you?
- Who is it that you want to help with this degree? How do you know they need help?
- Why are you interested in this topic? What learning have you done in this area? What is it that you find exciting?

2. The tools and skills that will help you succeed

Some prompting questions to ask yourself include:

- What do you do well? How do you know you do it well? What do you do that's different than somebody who is not good at this?
- What does it take to be good at what you want to do? What does someone need to know, do, or learn? When have you worked/learned in an environment like this? You may think you don't have relevant experience but re-frame the experience you DO have. For example, if you don't have relevant research experience, how do you share that you're a good candidate? You've completed previous degrees, which teach you how to research.
- What have you observed or thought about that's relevant to this work?

3. Why the program is a good fit for you

Some prompting questions to ask yourself include:

- How do your research interests match faculty interests? This is particularly important for research or thesis-based programs. What connects your proposed work with theirs?
- What did you notice about the program design, location, or content?
- What do you want to learn and how does this match the degree? For example, if a master's degree is a pre-requisite for a career you're interested in, WHY is it required?
- You can also frame this around your goals when you finish. How do these goals match the program?

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I would like to work on distributed systems because they present possibly the most difficult, and therefore the most interesting problems in the field of software engineering and system design. I believe that this program would give me an opportunity to contribute to this field under the supervision of highly regarded faculty and to develop research skills that an independent researcher needs: precisely define the problem that needs to be solved, conduct independent research, and clearly present the information to others.

I got interested in distributed systems while doing an internship at a blockchain company. I was curious about what makes it secure from malicious agents and what guarantees that the system will not fail unexpectedly. In the summer of 2022, I took part in a Summer Research program at the University of Toronto that gave me a chance to learn more about the theoretical aspects of such systems. I worked with Prof. Faith Ellen on the topic of consensus in distributed systems. Specifically, we focused on Byzantine Agreement, a version of consensus where processors might act maliciously. I've been working on this project in the fall term as well by studying the foundations of distributed computing and considering consensus algorithms in different models of computation. The project inspired me to audit a graduate course called "Introduction to Distributed Computing" to gain even more knowledge about the field. While working on this research project, I've realized that it is important to be clear when explaining your work and extremely precise while defining theoretical models.

As a graduate student, I would like to work on creating new distributed systems and speeding up existing ones. I'm also excited by the idea of working on security and formal verification of distributed systems. Projects that are related to blockchains and databases are of specific interest to me, although I'm open to working on other distributed systems as well.

Given everything that I've stated above, I'd like to work with Prof. Ian Goldberg because of his research on zero-knowledge proofs, censorship resistance on the Internet and privacy-preserving communications networks. I'm also captivated by the research of Prof. Raouf Boutaba on decentralization in blockchain. Finally, I'd like to work with Prof. Khuzaima Daudjee because of his work on distributed data systems. That being said, I'm happy to work with other professors who would be interested in my application.