Hi!

This short document is primarily meant to help new prospective students understand the different avenues through which you can join my research group. It also summaries how my group thinks about research, the process we employ to successfully conduct research, and how members of the group empower one another. It will lay out what kind of an advisor I am.

If you are a new student who has recently joined my group, this document will also lay out the expectations that I hold myself and my group members to.

How to apply to join my research group?

Ph.D. applicants: Like most professors, I tend to get a lot of emails asking if I will be taking new PhD students in the upcoming application cycle. So I am going to put this front and center:

> I intend on accepting at most 1 new PhD student in the upcoming PhD application cycle (2024).

While I always appreciate when students reach out to inform me that they will be applying, you do not need to email me or present me with your application materials or interests. Given the volume of applicants that apply every year, unfortunately, I am unable to meet with all potential applications.

That being said, I do spend a good deal of my time looking through the official PhD applications. When you apply through the official UW PhD application portal, mentioning my name in your application will move the application towards my direction automatically. The admissions council at UW CSE does redundantly reviews all candidates and forwards those that meet our bar for application to individual faculty. Once candidates reach me, I schedule interviews with prospective students so that we can get to know one another.

Masters and undergraduate applicants: Over the last few years, I have worked may dozens of masters and undergraduate students. Many of them have published first authored papers with me. Most of them have continued onto top PhD programs across the world. I have high expectations from all my students and I treat all my research students like PhD students. This means that if you decide to work with me on research, I will expect you to put in at least 15-20 hours of week. I have found from experience that any less will unlikely result in steady research progress.

If you are a UW undergraduate student interested in working on research with me, read through my papers. Find the ones that resonate with your interests. Reach out to me via email and also to the lead research who worked on that project with me. Send us your resume, transcript, overall research interests, and overall career goals.

What type of an advisor am I?

I am not just *one type* of advisor. Depending on who the student is—what stage of their career they are in—I adapt my advising style. Here are the different metaphors that describe the ways I have advised students so far:

- **Adaptive**: I have advised many students, in many different capacities. I will change how I advise you the longer we work together.
- **Amplifier**: I will amply your ideas by diving into what will make them splash. We will isolate the most exciting parts of your work and make sure we outline those in your papers.

- **Driver**: I will define the project and lay out the subgoals. In some cases, and this is usually for first year PhD students, I can define problem areas and even formulate the entire research problem for you. For new PhD students, just going through the motion of executing on a well defined project can help improve how they brainstorm future projects independently.
- **Colleague**: I will help unblock you as you pursue a direction. I never expect my students to solve problems on their own. This is what makes research fun. Let's dive in, get confused together. If we can't figure it out, you and I will go find collaborators or ask others for help. Research is collaborative and you will never work alone as long as you are my student.
- **Mentor**: I can teach you things you want to develop. Every quarter I ask my students to set goals for themselves: both personal as well as research goals. We sometimes operationalize personal goals, like learning how to become a better communicator, into practice throughout that quarter. I have iterated with my students to help them become good at articulating ideas: both their own as well as others. We can similarly operationalize your goals into actionable assignments that we discuss 1-1.
- **Student**: I can learn things that you are good at. I can't wait for you to teach me things. This is how I get better at research myself.
- **Therapist**: I am here to support you through this experience, not just in research. You can discuss things going on with your life with me. There is no expectation to do so. But if there are ways I can support you or understand your situation better, you are welcome to share.
- **Promoter**: I will push your work towards the right audience. I will help you write strong papers, create engaging talks, speak to others about your work, find opportunities for work and collaborators for you.

How often do I meet with my students?

I meet with all my students 1-1 at least once a week for 30 minutes. Some students are co-advised and we also meet as a group once a week. Some students want to meet more frequently and I dedicate more time for that. Sometimes we are brainstorming and need to meet multiple times a week to formulate a direction. Sometimes students are just executing on experiments and are welcome to cancel meetings.

Aside from that, we meet once a week as a group for lunch while someone gives a talk. We also meet once a week through the larger RAIVN group. Aside from these two group meetings, there are also HCI lunches talks, robotics seminars, GRAIL tea time, which some of my students go to.

What are my group norms?

This section will continue to evolve as my group evolves. I will add and remove norms depending on how everyone feels. Here is where it stands right now:
- Promote each other.
- Give to others in the group more than what they give you.
- Organize socials within the group and across multiple groups (we do this at least once a month).
- Share papers you like. Critique them, propose future directions.
- Share ideas and current events.
- Recruit others to help with anything you need help with.
- Identify things I am not good at, and teach me.
- Make blog posts, tweet, create a web presence.
- Constructively help each other avoid bad behavior.

What kind of students am I looking for?

This is an easy question: I want students I enjoy working with. I don't care how smart you are. I care that you are honest, communicative, hard working, willing to learn, helpful to others. I want students who demonstrate leadership and want a voice that defines where we are headed as a research community or more broadly as curators of technology.

What are my research norms?

While is it not common to have research norms, I want to lay out questions that will help you determine which kinds of research problems I do and do not want to work on (aside from research area).

o **Collaborative**: I tend to work with tons of people on projects. I prefer research projects with collaborators. If you can convince people that your project is worth their time, that's a good signal that you are onto something. Also, you get to meet and learn from others. It's a win win. You should be constantly pitching your projects and ideas to others.

o **Test of time**: I am more excited about a project whose results will still matter 10-15 years from now. If you want to see how well ChatGPT does on something, that's a bit shortsighted for my interests. If however, you introduce a conceptual framework to evaluate not just ChatGPT but all future language models, that could be exciting.

o **Future vision > technical insight**: I prefer projects that lay a claim to how the future should be according to you. I still like papers that use technical insights to propose better solutions. I value problem formulation more than fancy solutions.

o **Productivity**: Regardless of what you work on. I value productivity. Set weekly goals for yourself. Record what you do every week during your first year of your PhD. We can evaluate how to make you more productive.

o **Become an expert**: I want you to choose projects that move you towards this scenario: I want to introduce you as [Name], they are an expert in [topic].

What are research practices I expect?

Here are some general good practices I encourage:

o **Read, read, read!**: Read more than just CS papers. Read things that make your perspective unique. It's okay not to know everything about what is "hot" right now.

o **Ideation is a muscle**: Practice is constantly. Write down ideas in a private document, even if they are bad ideas.

o **Write!**: Writing is the best way to organize your thoughts. Use private journals, public blog posts, twitter posts, slack messages to me, whatever.

o **Re-assess your progress**: Keep track of your own growth.

o **Network**: Learn from others, invite them to speak to us, invite others to collaborate, etc.

o **Persist**: If you don't get stuck in a swamp, you are not being ambitious enough.