Having met inspiring instructors and mentors throughout my academic career, I came to believe that *curiosity* is the first and foremost component of successful learning. My teaching will consist of diverse ways to instill a sense of curiosity into students' mind and maintain it.

First, students must understand in which real-world contexts each topic arises. I will open free discussion sessions on not only the *connections* of the topics to the physical world, particularly to students' diverse backgrounds, but also the *disconnections* to it. I believe understanding the connections broadens students' perspective on how each methodology fits in a larger context. Understanding the disconnections, however, will make students realize weaknesses of existing methods and wonder how to improve them. Here, the diversity of the students plays an important role, which I will continue to promote throughout my career.

Second, I believe in the power of *story-telling*, especially for delivering technical and complex topics. I will first explain how an algorithm is motivated and why it has to work using natural language and thought experiments. Once the key idea is delivered, the remaining technicalities, which often demotivate students, become more approachable. This requires significant efforts in distilling the main idea from technical contents, which I am determined to undertake.

Finally, I will develop problem sets and projects that encourage students to develop new ways of applying the learned methods in real-world tasks.

Courses and Teaching Scope Since my primary background is machine learning, I am eager to teach Artificial Intelligence or Machine Learning at all levels. Specifically, I can offer Introduction to Artificial Intelligence that contains essential basics such as supervised, unsupervised, and reinforcement learning. In Machine Learning course, I will teach not only the standard topics such as graphical models and kernel methods but also more recent topics ranging from theory-based methods (e.g., online learning) to practical methods (e.g., deep learning). I would also love to teach Machine Learning Theory or Online Learning as advanced courses that provide theoretical tools for building provable algorithms and understanding machine learning. Minoring in Mathematics and Statistics, I can also offer introductory mathematics or statistics courses such as Mathematical Statistics, Linear Algebra, and Engineering Mathematics, that are fundamental in Science and Engineering schools. In addition to teaching traditional courses, I will lead graduate seminars on topics that are relevant to my current research, such as adaptive online learning and learning under limited feedback (multi-armed bandits).

Experience When I was an undergraduate student at Soongsil University in South Korea, I was a teaching assistant for Numerical Algebra where my job was to run office hours and grade homework. From my first TA, I realized and enjoyed how much I must understand the material to be able to explain it to students. At UW-Madison, I was a teaching assistant for both Introduction to Programming and Data Structure. The duties include advising programming lab hours, holding office hours, and evaluating exams. I have noticed that students have different learning rate, and some students get discouraged when the problem set is too challenging. In such cases, I provided the discouraged student with an easier version of the problem. This greatly helped guide the student to eventually solve the original problem. This experience taught me the importance of building problem sets with gradually-increasing difficulty. As a postdoc at UW-Madison, I have mentored a few graduate students at an early stage and provided guidance, especially on how to develop research ideas. As expected of a researcher, I have given numerous lectures at conferences and workshops about my work.