Throughout my academic career with inspiring instructors and mentors, I came to believe that curiosity is the first and foremost component of successful learning. I will center my teaching on how 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 a free-discussion session on not only the *connections* to the physical world, particularly to students' diverse background, but also the *disconnections*. 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.

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

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

Courses and Teaching Scope   My primary background being machine learning, I am eager to teach Artificial Intelligence and 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 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 Statistical 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 after encountering a problem that is too challenging. I helped the student by providing a slightly easier version first, which the student managed to solve, and the student was able to solve the challenging problem. This experience told me the importance of building problem sets with gradually-increasing difficulty. As a postdoc at the current institution, 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.