TTIC 31020: Introduction to Machine Learning	**Winter 2025**
Homework 1	
Due: January 9, 2025	

1. **A Learning Problem**

   Think of some task that could be approached using machine learning. This could be a task from your research area, a task you are working on or are interested in, or a technological application from daily life. Answer in approximately 100–200 words total:

   (a) Describe the task. What should the end system be able to do? What is the metric for the system performing well?

   (b) Can the system for the task be built using expert knowledge and careful programming? What expert knowledge is required?

   (c) What data would you collect for learning?

   (d) What are advantages and disadvantages with using machine learning for this task?