**Question 2.1**

*Describe a situation or problem from your job, everyday life, current events, etc., for which a classification model would be appropriate. List some (up to 5) predictors that you might use.*

**One possible answer:**

Being students at Georgia Tech, the Teaching Assistants for the course suggested the following example. A college admissions officer has a large pool of applicants must decide who will make up the next incoming class. The applicants must be put into different categories – admit, waitlist, and deny – so a classification model is appropriate. Some common factors used in college admissions classification are high school GPA, rank in high school class, SAT and/or ACT score, number of advanced placement courses taken, quality of written essay(s), quality of letters of recommendation, and quantity and depth of extracurricular activities.

If the goal of the model was to automate a process to make decisions that are similar to those made in the past, then previous admit/waitlist/deny decisions could be used as the response. Alternatively, if the goal of the model was to make *better* admissions decisions, then a different measure could be used as the response – for example, if the goal is to maximize the academic success of students, then whether each admitted student’s college GPA was above or below a certain threshold could be the response; if the goal is to maximize the post-graduation success of admitted students, then some measure of career success (e.g., whether each student got a good job after graduation) could be the response; etc.