**INFO 4601**
**Reflection 4: Bias and Fairness**
Due Friday 07/29 at 11:59pm

Make a copy of this document. Fill in your answers below each question. The number indicated is a *minimum* word count.

**Your Name:**

**Readings from this week:**

[Algorithms and Bias, Explained](), Recode

[How to define fairness to detect and prevent discriminatory outcomes in Machine Learning](), Medium

[YouTube Weighs Major Changes to Kids' Content Amid FTC Probe](), WSJ

[Machine Bias, ProPublica]()

[Can you make AI fairer than a judge? Play our courtroom algorithm game](), MIT Tech Review

Choose one of the following articles:
- "[Amazon Scraps Secret AI Recruiting Tool that Shows Bias Against Women]()", Reuters, 2018
- "[Google Has a History of Bias Against Black Girls]()", Time, 2018
- "[When An Algorithm Helps Send You to Prison]()", The New York Times, 2017
- "[What Went So Wrong with Microsoft's Tay AI?]()", readwrite, 2016
- "[Machine Bias: There's software used across the country to predict future criminals. And it's biased against blacks.]()" ProPublica, 2016

**Q1.** What is the difference between a positive rate and a true positive rate? Why might we use one over the other when trying to ensure fairness? [50 words]

**Q2.** What is the goal of the YouTube redesign in the WSJ article? What is this platform optimizing for? Do you think YouTube will lose profit after this change? Is it okay if they lose profit? [100 words]

**Q3.** In the Recode article, they state that AI systems that attempt to answer "social" questions fairly are "nonsensical" (e.g., an AI that predicts recidivism rates). Do you think AI should be used to help us answer social questions? Why or why not? [50 words]

**Q4.** For your selected article, how did the AI cause harm to humans? Whose fault was it (e.g., the algorithm, the data, the engineer, the company, society). What (if anything) could have been done to prevent this harm from happening? [100 words]

**Q5.** Why is it difficult to achieve fairness in machine learning systems? [100 words]