

Name: \_\_\_\_\_

### Quiz 6

CS584: Deep Learning  
Spring 2020

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Please submit this quiz by Wednesday, April 15 to the submission form on the course website. Each answer should have a few (or more) thoughtful, complete sentences.

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**Problem 1.** (*4 points*) What does the word “adversarial” mean in “generative adversarial networks” and “adversarial examples”? Does “adversarial” mean the same thing or a different thing in these terms?

**Problem 2.** (*3 points*) Are generative adversarial networks essentially learning the solution to a multi-objective optimization problem? If so, then how do GANs fit into this framework? If not, then what are GANs doing instead of this?

**Problem 3.** (*3 points*) Adversarial examples may raise concerns about privacy and security, but they also illustrate the robustness of machine learning models. What can we learn about model robustness from adversarial examples?