# Lab 5: Dropout-based Methods

CS 4921: Bayesian Methods for Neural Networks

13 February 2023

1. Train a neural network with dropout and a Bernoulli prediction for the ionosphere dataset.
2. Find the estimated aleatoric and epistemic uncertainty for all ionosphere examples using MC dropout.
3. Find the Laplace approximation of the neural network with MC dropout that was trained in answer to question 1.
4. Find the estimated aleatoric and epistemic uncertainty for all ionosphere examples using MC dropout and the Laplace approximation.
5. Train a neural network with concrete dropout and a Bernoulli prediction for the ionosphere dataset.
6. Find the estimated aleatoric and epistemic uncertainty for all ionosphere test examples using concrete dropout.