

# Final

**Problem 1:** Please read the part of AlphaGo in Chapter 8 of the book, and write a one-page summary.

**Problem 2:** Please read Chapter 9 of the book on XGboost, and write a one-page summary. Please read the following webpage

<https://randomrealizations.com/posts/xgboost-from-scratch/>

and implement the code. Note that the above code implements least squares regression instead of logistic regression for simplicity.

**Problem 3:** Please read the following webpage on SVM

<https://www.quarkml.com/2022/10/implementing-SVM-from-scratch-in-python.html>

Please implement the code and write a one-page summary. Note that the treatment here is on the primal problem. You can refer to Chapter 10 of the book on the traditional treatment of the dual problem.