

## **CSEP 590 Spring 2017 Homework 4**

**Due: Before class on Tuesday, April 25, 2017**

Please use the Dropbox linked from the CSEP590 web page to submit your review online. Any common readable document format is fine.

### **Problem 1**

Read “A Unified Theory of Garbage Collection” by David F. Bacon, Perry Cheng, and V.T. Rajan (available a few places, for example at <https://courses.cs.washington.edu/courses/cse590p/05au/p50-bacon.pdf>). Write a short review and summary of the paper (between a half and a full page, using a reasonable font size). What do you think of their conclusions? Are their results surprising?

### **Problem 2 (Optional, for fun and a little extra credit)**

If you are interested, play with Apache Spark – you can download and install a version on your own machine at <http://spark.apache.org/downloads.html>, or you can sign up for the free community edition of Databricks Cloud (this is what I used in class) at <https://accounts.cloud.databricks.com/registration.html#signup/community>.

Play around and try your favorite algorithms or analyses. Write up what you ran, and your impressions of usability and performance. How do you think it could be improved?