# Milestone Report for

# Research on Oblivious Algorithms
15-400, Spring 2021

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https://mkpjnx.github.io/ObliviousSort/

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## 1    Progress Update

I have finished comprehensive documentation of my codebase, and me and Professor Shi are beginning to review the source, as we plan on releasing it to the public. I am adding new test cases via the testing infrastructure per Professor Shi's suggestions. We also noticed unexpectedly poor performance. Aided by the new test cases, I have been profiling the code to identify bottlenecks.

As we enter the final weeks of the semester, I have began planning my presentation and write up. Though the main research questions of *"can a practical version of the 'Bucket Oblivious Sort' algorithm be implemented"* is not particularly open ended. I plan on making the focus of my presentation and report on tuning, evaluation, parallelization, and the questions that guided these processes.

## 2    Looking Forward

By tomorrow's meeting, I plan on finding and resolving at least some of the bottlenecks and be able to deliver new figures for comparison. In the two weeks before meeting of the minds, I hope to finish reviewing the code with Professor Shi, so we are prepared to release (at core parts of) the reference implementation.

## 3    Milestone Adjustments

This is the last milestone, so no more shifting goalposts.

## 4    Resources Required

No additional concerns so far.