

Title: CSCI1310/CSCI300 Course Development

Faculty Sponsor: Malte Schwarzkopf

Abstract:

For my capstone I designed and implemented the final assignment for CSCI1310 (now CSCI300) - Distributed Store. In the project, students design a distributed key-value store that shards, or partitions, the keyspace. Students are also introduced to gRPC and Protobuf, a modern rpc library and serialization format, which they used to facilitate communication between the various components of their system. The project was based on an assignment from MITs 6.824, but had to be rewritten in C++ and was extended with new functionality to give students more exposure to concurrency and fault tolerance in the context of distributed systems.