

Industrial Experience Report

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Innovative Systems, LLC

Intern, May 2011 – August 2012

APMAX Test Suite

This was an internship between my sophomore and senior years of college. I assisted in developing the APMAX Test Suite, an internal tool to perform stress tests on Innovative Systems' APMAX, an application server for telecommunication service providers. This work lead to a senior design project, which added the ability to test the user interface of physical set-top boxes attached to the APMAX.

During the summer between my sophomore and junior years of college, I wrote Smartphone Emulator, a lightweight program to emulate users using a web portal or mobile application to communicate with the APMAX; this program was then run using Visual Studio Load Test to put stress on the APMAX.

During my junior year of college, I was tasked with re-implementing a separate component of the APMAX Test Suite that emulated set-top boxes connected to the APMAX. This new version utilized a framework built from the previous version that made the code more maintainable. I also assisted in the testing of a set of a new network protocol for the APMAX that utilized Protocol Buffers to send and receive messages.

During the summer between my junior and senior years of college, I was tasked with updating various components of the APMAX Test Suite. Specifically, Protocol Buffer support was added to the Smartphone Emulator. Along with this, I assisted in developing the GUI used to run tests using the APMAX Test Suite.