HENRY ZHU

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EDUCATION

Computer Science | University of Pennsylvania, School of Engineering and Applied Science
[2015] – [2019]
GPA: 3.39

EXPERIENCE

Research | [Dedos]
MAY 2018 – ONGOING
Under Prof. Boon Thau Loo and Nik Sultana, I worked on/built on top of static/dynamic analysis tools to detect and pinpoint bottlenecks in server applications such as Apache when the server is under attacks such as Sloworis and Thor's Hammer. Using the gathered information, the server's source code is statically using clang libtooling.

Research | [Bro SSL/TLS Analyzer]
JUNE 2017 – SEPTEMBER 2017
Under Prof. Nadia Heninger, I developed a C++ plugin for BRO, an open source security network framework, which identifies fields such as weak keys and duplicate randoms in a SSL/TLS handshake that could indicate a vulnerability in a SSL implementation.

Research | [Control, Sensor, Network and Perception Labatory]
MAY 2016 – AUGUST 2016
Focused on App development using Swift and backend using nodejs. Created a reliable application that transferred images sent from a camera to database.

Teaching Assistant | [CIS 240 - Introduction to Computer Systems]
AUGUST 2016 – CURRENT
Teach the students a bottom up approach on how computers work; begins with basic computer hardware architecture, continues with writing assembly and then finishes with C project assignments.

Project | [OOC (https://github.com/Maknee/OOC)]
JUNE 2017 – AUGUST 2017
Developed a C framework that provides classes such as strings, templated vectors, templated sets and templated maps. Contains runtime type information for casting between objects, move semantics for transferring ownership of an object and foreach loop for objects.

SKILLS

[C, Java]- Working knowledge [C++, Bash, Python, x86 assembly] – Proficient [Web dev] - Novice

INTERESTS

My main interests are reverse engineering applications and studying low-level software. I enjoy using tools such as IDA Pro and OllyDbg in order to understand the underlying data structures and design used to build the application. I also am interested in LLVM.