

Dominic Giacoppe

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Education

Oregon State University, Corvallis, OR

Expected graduation date: March 2018

Major: BS in Computer Science with the Systems option

Minor: Asian Culture with a concentration in Japanese (Formerly the Japanese Minor)

Current standing: Senior, 3.5 cumulative GPA

Skills

- Highly Proficient in C and C++
- Moderate understanding of Python, Java, SQL and HTML/Javascript
- Some experience with ASM, particularly x86/64 and AVR
- Some Test Driven Development (TDD) and AGILE experience
- Proficient in Bash and Bash like terminals
- Experience in Linux environments, including at the kernel level.
- Experience in git/github for version control
- Strong small team communication and leadership skills
- Japanese language level of around JLPT N3 (Sufficient to carry a basic conversation)

Classes of Note

Software Engineering I

Practiced AGILE methods and Test Driven development in a small team in Java, using the NetBeans IDE. Used a maven-based build system locally and travisCI on github to ensure code compliance. Also learned some software engineering best practices and program design. All of this was used in a term-long small group project, which went well.

Computer Architecture

Learned the more physical components of computers, including about CPU memory, memory access and efficient access patterns. Class was largely focused on the x86_64 and ARM architectures and their implementations, with special emphasis on x86_64 and the assembler. Used this knowledge to analyze and describe the architecture of the Commodore64 in an end of term paper.

Computer Security

Learned many cybersecurity techniques, including binary reverse engineering, vulnerability analysis, shellcode scripting, and stack exploitation. Currently in progress, but will eventually have an end of term event where small teams participate in real CTFs and document the kinds of attacks performed.

Employment

Teacher's Assistant position for OSU Online Intro to Computer Science

Corvallis, OR

January 2014 – Now

Manage about 30 students per term, assisting with questions and grading assignments written in C++, and if needed reviewing and debugging student code. Review new materials for the course as asked by the instructor.

Activities

Senior Project, Corvallis, Oregon

September 2016 – July 2017

Part of a three person team working on identifying security vulnerabilities and exploits for ROS, the Robotics Operating System. Over the year, we tested ROS and created packages to demonstrate vulnerabilities that we found, culminating in a report on our findings available on my github. We found that ROS has no security measures of any sort, making it very easy to exploit, and to secure it one must secure the underlying operating system along with all communication channels ROS uses.

Study Abroad, Waseda University, Japan

April 2016 – August 2016

Studied abroad in Japan for a semester while living with a host family. Lived as a Japanese college student for that time, and participated in college and community activities. Spoke mostly Japanese for the duration of my time, with classes taught in Japanese as well.