## Michael Liang Li

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### **Experience & Technical Skills**

#### **ImageSTEM**

ASU School of Arts Media & Engr, Student Worker September 2020 – Current

#### **Software Intern**

Acme Aerospace, Tempe AZ August 2019 - Present

# Convolutional Neural Networks ASU, CSE494

August 2019 - December 2019

#### **CTF Challenges**

ASU, CSE466 August 2019 - December 2019

#### **Abstract Syntax Tree**

ASU, CSE340 January 2019 – May 2019

#### **Huffman Code**

ASU, CSE310 August 2018 – December 2018

- Designing modules to introduce artificial intelligence into grades 6-8 curriculum via computational cameras and the medium of Google Colab
- Implemented tutorials and videos for Digication and the various tools with over 500,000 hits
- Revised the web design for the Help Resources pages with a focus on accessibility
- Scripted in Python and Windows batch to automate checking proper documentation, archiving and committing past projects to VisualSVN from Smartbear Collaborator
- Created scripts to log VisualSVN commits into the corresponding JIRA issues
- Built the LeNet-5 architecture in Keras, achieving 90% test accuracy using the MNIST and Fashion MNIST datasets
- Reached 75% test accuracy on the CIFAR-10 Dataset with 10 epochs
- Executed a variety of exploit techniques in a lab setting
- Reverse engineered x86\_64 (AMD64) Linux binaries with Ghidra
- Wrote assembly code to exploit Linux systems and exploiting common insecure programming practices
- Testing Shell and Python scripts to attack vulnerabilities with brute force
- Developed an Abstract Syntax Tree to recognize a grammar, and parse for syntax and semantic errors
- Designed with scalability and easy modification in mind, using object-oriented design principles such as abstract base classes
- Implemented a Huffman compression algorithm in C++ to generate a tree as well as calculating the compression ratio.
- Tested and benchmarked average compression ratio and runtime.

Proficient in Python, C, C++, Java, Ubuntu Linux

Familiar with x86\_64 assembly, cron, SQL

Tempe, AZ

Expected: May 2021

#### Education

**Arizona State University** 

Bachelor of Science, Computer Science (GPA: 3.63) Minor in Studio Art Barrett, the Honors College

## Volunteering and Community Involvement

Secretary/Race Team Member ASU Dragon Boat

August 2017 – September 2019

- Competed in San Diego, Tempe and Long Beach paddling competitions (2017-2018)
- Volunteered with the Iron Man organization as part of the security team, and with Boeing to clean and renovate the Desert Sun Child Development Center