KAREN LI

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EDUCATION

UNIVERSITY OF CALIFORNIA, LOS ANGELES
SEPTEMBER 2015 TO JUNE 2019

- B.S. Computer Science
- Cumulative/Major GPA: 4.0 (Dean's Honors List)
- Engineering Ambassador for UCLA Engineering
- Undergraduate Researcher for Neurovascular Imaging Research Core

SKILLS AND COURSEWORK

LANGUAGES C++, C, Python, JavaScript, PHP, SQL, HTML/CSS, Octave/MATLAB

SOFTWARE TOOLS Linux, Apache, MySQL, Bootstrap, Git, WebGL

CS 33 Computer Organization | **CS 111** Operating Systems

CS 174A Intro to Computer Graphics | **CS 118** Computer Networking

EXPERIENCE

JR. WEB DEVELOPER FOR FORTINET INC.
JUNE 2016 TO SEPTEMBER 2016

- Created a new archive for Fortinet's bug reporting database to optimize time required to view entries by splitting data between two servers
- Wrote scripts to correctly insert and remove data between relational databases with tables of 4+ million entries (currently used in production)
- Utilized bug database APIs to implement a new website for Fortinet developers to view the archived entries

PROJECTS

RAINBOW RUNNER (JAVASCRIPT, WEBGL, HTML/CSS)

- Vertically scrolling game where the player must dodge randomly generated cubes while navigating a Rainbow Road or Super Mario themed world
- Implemented all computer graphics and game logic from scratch

SIMPLETON SHELL (C)

- Simple, stripped down shell that takes in as command line arguments which files to access, which pipes to create, and which subcommands to invoke
- Child processes are spawned to run subcommands and their exit statuses reported

REINFORCEMENT LEARNING TRADING (PYTHON)

- Reinforcement learning agent that uses Bitcoin price time series to learn an optimal trading policy to maximize total profit for each episode
- Research project supervised by Dr. Fabien Scalzo and implemented on top of the Maja Machine Learning Framework and scikit-learn

CYBER SPIDER ATTACK DETECTION SYSTEM (C++)

- Implemented disk-based hash tables to search for relationships between known malicious entities and other entities to discover as-yet unknown malicious entities
- Received score of 99/100, whereas class median score was 53/100

HANDWRITTEN DIGIT RECOGNITION (OCTAVE/MATLAB)

- Implemented forward and back propagation algorithms with regularization on a three-layer neural network for the task of handwritten digit recognition
- Applied multiclass logistic regression for the same purpose as well