# **BRADLEY ZHOU**

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#### **EDUCATION**

#### **Carnegie Mellon University**

B.S., Electrical and Computer Engineering, dec '20 minor in computer science

#### RELEVANT COURSEWORK

**Data Structures** Computer Systems Discrete Math **Embedded Systems Functional Programming** Parallel Computer Architecture Parallel and Sequential Data Structures and Algorithms

## **SKILLS**

#### **PROGRAMMING**

Proficient: C/C++, Python Familiar: SML, Java, x86 assembly, ARM assembly, SQL

## **TOOLS & FRAMEWORKS**

Unix, Git, HTML/CSS, Flask, Bootstrap, Jekyll

#### **HONORS**

**SWE Summit** auq '18 Capital One Dean's List may

Carnegie Mellon University

aug Presidential Scholarship 117 Carnegie Mellon University

### **LEADERSHIP**

#### **Club Tennis**

social chair

may '19 - present

#### **Asian Students Association**

head of public relations

dec '17 - dec '18

#### **EXPERIENCE**

**Facebook** menlo park, ca incoming production engineer intern sept '19 - dec '19

· Fall 2019

**TransMarket Group** chicago, il incoming software engineer intern may '19 - aug '19

· Core systems development

Carnegie Mellon University pittsburgh, pa jan '19 - present teaching assistant

· 15-213: Introduction to Computer Systems

## Pittsburgh Supercomputing Center

pittsburgh, pa june '18 - aug '18

research intern · Developed machine learning programs for computational studies of high entropy alloys

#### **PROJECTS**

## **Threaded Garbage Collector**

Thread-safe mark and sweep garbage collector for C implemented using pthreads and fine grained locking to accelerate performance

### **Embedded Real Time Kernel**

Kernel run on a Raspberry Pi featuring serial I/O, threading, context swapping, a scheduler, and a mutex interface

## Website Prototyping System

Processes images using OpenCV to be sent via a React app to an API that transforms the hand-drawn layouts to dynamically render HTML/CSS in real-time

## **Podcast Engine**

Web app created with Flask to organize subscriptions, visualize popular podcasts, and get recommendations for new podcasts

#### **HQ** Bot

Automates search of answers to questions from the popular gameshow trivia app "HQ" using Tesseract OCR and Google Search API

### **Multi-threaded Web Proxy**

Concurrent web proxy that forwards HTTP GET requests, caches web objects, and handles simultaneous connections

Updated 5/17/19