# **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** Discrete Math **Computer Systems 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** '18 Capital One

may Dean's List

'18 Carnegie Mellon University

aug Presidential Scholarship '17 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 sept '19 - dec '19 incoming production engineer intern

· Fall 2019

# TransMarket Group

chicago, il may '19 - aug '19 software engineer intern

· Core systems development

# Carnegie Mellon University

jan '19 – present teaching assistant

· Taught recitation, led review sessions, and hosted office hours for graduates and undergraduates taking 15-213: Introduction to Computer Systems

# **Pittsburgh Supercomputing Center**

pittsburgh, pa june '18 – aug '18

pittsburgh, pa

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 fine-grained locking and pthreads 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