

# BRADLEY ZHOU

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## EDUCATION

### Carnegie Mellon University

B.S., Electrical and Computer Engineering, may '21  
minor in computer science

## RELEVANT COURSEWORK

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

## SKILLS

### PROGRAMMING

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

### TOOLS & FRAMEWORKS

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

## HONORS

aug '18 SWE Summit  
Capital One  
may '18 Dean's List  
Carnegie Mellon University  
aug '17 Presidential Scholarship  
Carnegie Mellon University

## LEADERSHIP

### Club Tennis

social chair  
may '19 – present

### Asian Students Association

head of public relations  
dec '17 – dec '18

## EXPERIENCE

### Facebook

incoming production engineer intern

· Video Infrastructure

menlo park, ca

sept '19 – dec '19

### TransMarket Group

software engineer intern

· Developed a distributed work queue to streamline testing of core systems and trades by enabling users to submit jobs to run and benchmark their programs automatically while also removing the previous limitation of no concurrent users  
· Extended this system by creating a trade to benchmark latencies and incorporated it into a continuous integration pipeline for regression testing

chicago, il

may '19 – aug '19

### Carnegie Mellon University

teaching assistant

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

pittsburgh, pa

jan '19 – may '19

### Pittsburgh Supercomputing Center

research intern

· Developed statistical models using scikit-learn and TensorFlow to assist in computational studies of high entropy alloys

pittsburgh, pa

june '18 – aug '18

## 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