# **Brandon Eng**

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### **Education**

## California Polytechnic State University, San Luis Obispo

**B.S Computer Engineering** 

## **Skills**

Programming Languages – Python, Java, C, C#, C++ Libraries/Frameworks – Django/DRF, Beautiful Soup Environment/Tools – MySQL, GIT, Postman, AWS (EC2, RDS), NGINX, Ubuntu, Docker

## **Projects**

## Minigames – worldminigame.com – github.com/brandoneng000/minigames

February 2022

January 2022

- Developed and formatted minigames of Rock Paper Scissors and Coin Toss using JavaScript and HTML
- Developed RESTful API using Django Rest Framework in Python
- Used API to update MySQL database with the new result from the game
- Setup a CI/CD workflow utilizing GitHub Actions
- Ran Django unit tests to verify and maintain functionality
- Deployed on AWS EC2 Instance utilizing a RDS MySQL database

#### MHR Monsters – mhr-monsters.herokuapp.com – github.com/brandoneng000/MHRMonster

• Displayed details on large monsters in Monster Hunter Rise

- Provided users with a simple view on monster's average weaknesses
- Devised an API to communicate between web interface and MySQL database
- Created easy to use front-end using Django Templates
- Employed Diango REST Framework through Python
- Deployed using Heroku and ClearDB

#### Monster Hunter Rise Data – github.com/brandoneng000/MonsterHunterRiseData

January 2022

- Scraped websites to retrieve HTML data from Monster Hunter Rise using Python
- Processed HTML information and outputs data into CSV
- Employed Beautiful Soup to extract HTML

#### MHR Builder – mhrbuilder.herokuapp.com

May 2021—August 2021

- Visited and used by 22,000 users over the course of a year
- Collaborative work in designing armor and weapon simulator for Monster Hunter Rise
- Extrapolated figures based on game and user equipment to improve their theoretical output
- Gathered and stored equipment data in JSON
- Encoded data into Base64 for ease of sharing equipment loadouts
- Utilized Vue.js to create an interactive UI when modifying equipment
- Tested application to verify functionality and accuracy of calculations

#### **LZW** Decompression

February 2015

- Decompressed data that was compressed using LZW compression. Written in C.
- Developed how program stores and generate data
- Used bit manipulation to convert compressed data into ASCII

## **Work Experience**