# **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++

Environment/Tools - Django, Flask, MongoDB, MySQL, GIT, Postman, AWS, NGINX, Ubuntu, Docker

## **Projects**

### FGOrdle – fgordle.vercel.app – Github

March 2023

- Created a Wordle-like game using characters from the game Fate/Grand Order with HTML and JavaScript
- Built with microservices architecture to display character information and JWT authentication
- Expedited character information with backend made with Flask and MongoDB
- Implemented JWT authentication using Flask and SQLite DB
- Updated character MongoDB using cron job and AWS Lambda

#### Minigames – worldminigames.pythonanywhere.com – Github

February 2022

- Developed and formatted minigames of <u>Rock Paper Scissors</u> and <u>Coin Toss</u> 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
- Transitioned from using an EC2 Instance to PythonAnywhere
- Setup a CI/CD workflow utilizing GitHub Actions
- Ran Django unit tests to verify and maintain functionality

#### MHR Monsters - Github

January 2022

- 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 Django REST Framework through Python
- Deployed using Heroku and ClearDB

#### Monster Hunter Rise Data – Github

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.netlify.app

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
- Built UI to extrapolate game stats based on equipment, helping users improve their game performance
- 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

# **Work Experience**

Provider at IHSS