

Penghui(Payton) Dong

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[PORTFOLIO](#)

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SKILLS

Javascript, Ruby, Python, Node.js, HTML, CSS, React, Redux, Rails, SQL, AWS S3, MongoDB, MongooseDB, PostgreSQL, JQuery, Webpack, Git, Github, Heroku

PROJECTS

PayMaZone (Javascript, React/Redux, Ruby, Ruby on Rails, AWS, PostgreSQL, web pack, HTML5, CSS3)

[live](#) | [github](#)

An Amazon clone using JS and React/Redux for frontend and Ruby on Rails for backend

- Single handedly developed frontend and backend Full Stack web-application, and user interactions with comments/reviews.
- Utilized AWS S3 to keep products' images to be shown on each products page
- Built out a rails backend that integrated with ReactJS front end with full user authentication, and Cross Site Request Forgery Protection, and session tokens to have an uninterrupted user experience(UX).
- Created custom SQL queries and reduced server load through the utilization of Active Record associations to extract data from multiple tables in a single query
- Enabled flexible search functionality that filters products from backend and returns results that matches users' input

Meals4You (Express, MongoDB, Mongoose, HTML5, CSS3, NodeJS, ReactJS)

[live](#) | [github](#)

Allows users to click on a wheel and randomly selects an item so users doesn't have to struggle difficulty of choosing

- Led team of 4 talented developers to build a MERN-stack project that solves the problem of debating what to eat for lunch/dinner each day.
- Constructed user authentication to fully secure user signup and login by using JSON Web Token (JWT) on the backend to persist user experience
- Developed a full backend with express and mongoose. Created routes to fetch data from MongoDB and filtering data to be returned in json format
- Structured frontend reducers and states to keep information when logged in to have less loading times and live updates on any changes users made.
- Using yelp API to fetch data after users have spun the wheel and give recommended restaurants users can choose from, in-order to perfect user experience.

CnoonBall (Javascript, HTML5, CSS3, JQuery)

[live](#) | [github](#)

A game like Gunbound but simple version utilizing canvas element in html

- Implemented drawing logic using OOP class structures to organize different components
- Implemented game logics and instructions for players to have a thorough play through.
- Built animation using animation frames to make general playstyle fluid

EXPERIENCE

Research Assistant

New Mexico EPSCoR Smart Grid Project

May 2019 - May 2020

- Hardening security of Android device's pattern unlock with EMG based bio-metrics data to match user's identity
- Developed a two factor screen unlock scheme. User draws pattern to unlock screen while simultaneously recording the EMG signals
- Utilizes openBCI devices to record raw data from users and process the raw data to readable numbers with graphs to visualize the data that had been processed.
- Using machine learning algorithms such as SVM, KNN, etc. to increase accuracy of user's identity up to 93%.

EDUCATION

Web Development - App Academy | July 2022 - Nov 2022

BA Computer Science - New Mexico Institute of Mining and Technology | 2016 - 2021