

Tony J Huang

(617) 417-2051 | HuangTonyJ91@Gmail.com

www.HuangTonyJ.com | [LinkedIn.com/in/HuangTonyJ](https://www.linkedin.com/in/HuangTonyJ) | [GitHub.com/HuangTonyJ](https://github.com/HuangTonyJ)

SKILLS

Frontend: • React • Redux • HTML5 + Canvas • CSS3 • jQuery

Backend: • Ruby on Rails • ExpressJS • SQL • PostgreSQL • MongoDB • Rspec • Jest • Heroku

Others: • Ruby • JavaScript • R • MATLAB • Microsoft Office (VBA, Pivot Tables) • Creo/SolidWorks • Git • AWS S3

PROJECTS

Breakout-Webcam

huangtonyj.github.io/Breakout-Webcam

Classic Atari Breakout game powered by machine learning to play with hand gestures.

(TensorFlow, JavaScript, HTML5, Canvas, CSS3, Webpack)

- Incorporated hand gestures controls using TensorFlow to predict a multiclass classification from a trained convolutional neural network of frames captured by webcam.
- Formulated collision detection algorithm to remove brick and reflect off platform upon contact with ball.
- Applied OOP to abstract and encapsulate classes for game, platform, bricks, ball, and webcam controls.
- Coded custom loading spinner that mimics gameplay with CSS.

Kilogram

kil0gram.herokuapp.com

Clone of Instagram, a photo sharing social networking platform.

(Ruby on Rails, BCrypt, AWS S3, ReactJS, Redux, Heroku, jQuery, Webpack)

- Minimized FE code runtime for liking/unliking a post and following/unfollowing a user by devising an efficient denormalized data structure for the Redux state and API response.
- Implemented user authentication using BCrypt for salting and hashing passwords.
- Stored image uploads in AWS S3 to reduce server load and scale application.
- Built reusable React components in combination with Redux for post show and posts index.

Bored No More

borednomore.herokuapp.com

Activity prescription app for the bored based on user's preferences.

(MongoDB, ExpressJS, ReactJS, Redux, NodeJS, Yelp API, TicketMaster API)

- Created backend API endpoint to reroute Yelp API calls to prevent CORS (Cross-origin resource sharing).
- Formalized code to create Axios request to Yelp and TicketMaster API based on application requirements.

EXPERIENCE

Liberty Mutual Insurance

Boston, MA

Analyst - Modeling, Data Science

Jul 2016 - Aug 2017

- Utilized R Leaflet package to create interactive HTML heat map visuals and generalized code to share with colleagues.
- Built catastrophe models in collaboration with senior director for competitive pricing.
- Aided sales and underwriting strategies by conducting regional segmentation analysis with hierarchical clustering and k-means.
- Performed geospatial smoothing to counteract abrupt step-wise grouping.

Business Analytics Development Program, Analyst Associate II

Jun 2014 - May 2016

- Learned VBA to code an Excel tool for data gathering and analysis to aid decision making.
- Developed workforce capacity model for evaluating task-based staffing using multivariate linear regression.
- Improved predictive model performance by coding Excel user-defined functions to scrape data from web APIs.

EDUCATION

App Academy

San Francisco, CA

Graduate of a rigorous 1000-hour full stack web-development course.

2018

Bentley University

Waltham, MA

Bachelor of Science, Actuarial Science; magna cum laude; Major GPA: 4.0

May 2014

Boston University, College of Engineering

Boston, MA

Master of Science, Electrical Engineering; GPA 4.0

Attended Fall 2017 (Leave of Absence)