

# JAMES Z. HONG

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**SKILLS** React-Redux, Ruby on Rails, JavaScript, Node.js, HTML, CSS, Git, PostgreSQL, Rspec, Heroku, MongoDB

## PROJECTS

**TableLog** | (React / Redux, Rails 5, Ruby, Postgresql)

[Live Site](#) | [Github](#)

*An OpenTable-inspired single-page web app where users can CRUD restaurant reservations and reviews*

- Applied Ruby on Rails utilizing Users, Restaurants, Reservations, and other ActiveRecord models and controllers to properly store into and query database to pass relevant data to frontend
- Implemented backend authentication pattern in Ruby on Rails including password encryption and session cookies
- Managed a booking CRUD through custom transactional database operations using Active Record and PostgreSQL
- Adhered to React and ES6 best practices to generate a true single-page reactive web app experience
- Connected the Rails backend to AWS S3 for media storage and organization
- Implemented custom search and search auto-suggestion feature that properly filters cuisine category and cities as users type; passing data to the backend to pull specific restaurant info, and actions are dispatched to update state

**SwipeX** | (MongoDB, Express, React / Redux, Node.js)

[Live Site](#) | [Github](#)

*An exchange platform where students can trade meal swipes to maximize meal plan values and reduce financial burden*

- Successfully created and utilized a NoSQL database with MongoDB for all relevant information.
- Performed queries by using mongoose (ODM/ ORM) to represent the data as objects and query by function chaining.
- Prevented unauthorized access to user data by utilizing JSON Web Token and Passport to protect express routes and verify user credentials before making API calls.
- Designed and Built a frontend conversation page with interacting functionalities for users to make offers and confirm exchanges of meal swipes as well as leave comments for the other user.

**Wizard of Odds** | (Javascript, HTML, CSS)

[Live Site](#) | [Github](#)

*A web application to allow users to simulate a poker hand and see the probabilities of every possible outcome.*

- Built an algorithm from scratch for calculating poker hand outcomes and included opponent hand ranges as a variable
- Implemented dynamic styling for users to better interact with the application

## EXPERIENCE

### Project Manager

*Power Environmental & Energy Research Institute, Sep 2016 - Aug 2021*

- Led two R&D projects including the development of a novel solution for high-saline wastewater treatment (\$100K funding)
- Managed a product line of 50 chemical products including newly-developed formula and commercially available products
- Developed a tool for analyzing chemical trading data to identify reliable chemical sources and market opportunities

### Laboratory Analyst

*Los Angeles County Sanitation Districts, Sep 2013 - Aug 2016*

- Managed interdepartmental research projects for the major water reclamation plant
- Developed standard operating procedures for wastewater sample collection and automated sampler setup and maintenance to improve auto-sampling reliability in the laboratory section

## EDUCATION

**App Academy** - Immersive software development course with focus on full-stack web development (Winter 2021)

**Johns Hopkins University** - MS - Environmental Engineering (Spring 2013)

**Fudan University** - BS - Environmental Science (Spring 2011)