

# David (Jeahoung) Hong

jeahoung hong@gmail.com | (917)-454-8838 | [Linked In](#) | [Github](#) | [Portfolio](#)

## EDUCATION

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**App Academy**, Full Stack Software Development program, September 2022

**The Cooper Union**, Master's in Engineering (Structural Engineering), May 2020

**The Cooper Union**, Bachelor of Engineering (Structural Engineering), May 2020, *Summa Cum Laude*

## SKILLS

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**Languages:** TypeScript, JavaScript, Ruby, Python3, HTML5, CSS3, GraphQL

**Frameworks:** React, Node.js, NextJS, Ruby on Rails, Express.js

**Databases:** MongoDB, PostgreSQL, SQLite

**Tools:** Git, AWS S3, Websocket API, Webpack, D3 (JavaScript)

## PROJECTS

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**Moana**, *Ruby on Rails, React, Redux, PostgreSQL, AWS, HTML5, CSS3*

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

Full-stack clone of Asana, the project management tool

- Fully functional CRUD features for Teams, Projects, Sections, Tasks using Rails as a backend and PostgreSQL for the database
- Implementation of React Beautiful Drag and Drop to allow for visualization of tasks in lists and boards
- Established sub-task functionality within tasks to create tree-like structure using Rails' polymorphic associations
- Designed inline edit system to allow for real-time edits of model parameter

**National Park Visualizer**, *Javascript, D3, JQuery, Parks Resource API, Google Maps API*

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

Map visualizer allowing users to interact with a map of the USA and discover and learn more about national parks

- Coupled a D3geo interactive US map with coordinates from Parks Resource API to allow users to zoom into states, and click on parks to load a parks information modal
- Created filter and search functionality using native Parks API queries and AJAX requests, allowing users to query parks that meet their desired criteria
- Utilized Parks Resources API, AJAX, Flickr API requests, Google Maps API, to present a photo modal, relevant information, and maps for each national park

**Tee Times**, *NodeJS, React, MongoDB, Express, Axios, Google Maps Javascript API*

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

A golf event and group finder full-stack web application

- Utilized Google Maps API to display course information and events associated with a specific golf course, allowing users to filter events by courses
- Employed Redux state architecture to render tailored events, groups, and profile pages
- Populated events with suggested tags depending on the local state of the user group

**Load Determination on Bridges using WIM Data (Master's Thesis)**, *Python, Numpy*

- Paired Weigh-In-Motion Data with framework method in Python3 to track axle loads along a bridge deck, given strain data. Weigh-In-Motion data eliminated the parameter of axle loads which allowed for vehicles to be tracked along a bridge to a specific resolution given the strain data and a refresh rate.

## PROFESSIONAL EXPERIENCE

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**Building Envelope Consultant - Sullivan Engineering, LLC.**

*May 2021 - April 2022*

- Managed on average five ongoing facade restoration projects, led weekly progress meetings, prepared field reports, and communicated updates, required work, and deadlines to owners, contractors, and expeditors.
- Designed roofing systems, building facades, sidewalks, and storefronts for both existing and new construction. Experienced in mass masonry, EIFS, and window wall systems.

**Structural Engineer, EIT - Cavalry Associates**

*August 2020 - May 2021*

- Designed structural, scope of excavation, and foundation plans using Finite Element software (SAFE, SAP2000, and ETABS) to design steel, concrete, and light-gauge steel buildings
- Created and implemented AutoLISP scripts to generate Builders Pavement Plans in AutoCAD, streamlining plan production from survey data