

Woojin Chae

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New York, NY

[PORTFOLIO](#)

[GITHUB](#)

[LINKEDIN](#)

SKILLS

React, Redux, Ruby, Rails, JavaScript, AWS CDA, PostgreSQL, D3.js, PHP, MATLAB, Git, Heroku, RSpec, HTML, CSS

PROJECTS

Edna (Rails, React, Redux, PostgreSQL, Webpack, Heroku, CSS)

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

Asana-inspired app enhancing project management ability through task assignments and progress tracking

- Leveraged linked-list data structure and its optimized insertion and deletion performance to minimize the increase in computation power and resources on re-ordering, creating and deleting tasks within the users' project as the list grows
- Implemented task drag-and-drop functionality using draggable and droppable components from React Beautiful DnD library which guarantees a seamless task managing process for the user
- Integrated Redux Lifecycle's reducer to simplify complex state changes and improve the readability of the code, thus reducing development and error-handling time

Weather To Go (Vanilla JavaScript, Node.js, D3.js, Canvas)

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

Interactive visualization of a monthly weather map to assist in deciding travel destinations

- Employed D3.js to render a global map overlaid with a monthly average temperature over 196 countries to create intuitive visualization of the best countries to visit on user-selected month
- Built custom CSV parser for World Bank Open Data and over 100,000 NOAA GSOM stations data to overcome API limit and increase the scalability of the project
- Utilized Canvas to place ~10,000 weather station markers along with event listeners to optimize the performance, thus providing smooth user experience while handling many different data points at once

EXPERIENCE

Lead Developer

Sept 2017 - Mar 2019

H5 Marketing

- Designed a B2B SaaS product using MVC architecture and administered the development with a team of two developers, a designer, and a content writer
- Saved 20 hours/month of staff time by developing a PHP program incorporated with AWeber and Google Sheet APIs to automate weekly report generation
- Reduced development and debugging time by more than 50% through refactoring the existing system with test-driven development and DRY principles
- Processed a spike of 100 custom form submissions and live transaction data from ClickBank per minute and automated membership creation through webhooks and relational database structure creating a database that is easy to work with

Research Assistant

Dec 2015 - May 2016

Rutgers University Mechanical and Aerospace Engineering Lab

- Designed and conducted experiments on self-actuating tunable antenna using 3D PDMS polymer printer and EGaln that tuned itself based on humidity or when it made contact with a liquid

Research Assistant

Sept 2014 - May 2015

Dynamical Systems Laboratory

- Published a paper on IOP Science, in the Journal of Smart Materials and Structures (2015), validating the use of time-resolved PIV to detail the fluid motion and energy near an IPMC vibrating at its fundamental mode using MATLAB

EDUCATION

Full Stack Development - App Academy | Fall 2019

A.S. in Computer Science - Essex County College | 2016 - 2017

M.Sc. in Mechanical and Aerospace Engineering - NYU Tandon School of Engineering | 2013 - 2015

B.S. in Mechanical and Aerospace Engineering - NYU Tandon School of Engineering | 2010 - 2015