

# Software Engineer

## Erick Melendez

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### Experience

**Centerfield Media** | Contract | **React Developer** Jun 2021 ~ Aug 2021

- Utilized **React** to create reusable components and leverage the reconciliation algorithm in order to re-render parts of the DOM that have changed
- Capitalized on **React PropTypes** to configure and guarantee controlled component rendering as well as provide explicit error handling
- Applied **Redux** to create a centralized data store that reduces prop drilling, enhances scalability by logically organizing state, and with **Immutable.js**, ensures data immutability for an improved debugging experience
- Adopted **SASS** to improve extensibility and readability of stylesheets and ensure that the design of each component remained modular and independent
- Used **Redux Saga** Generators to handle async calls for authentication & dynamically generated data improving determinism of async testing
- Wrote **Jest**-based end-to-end, integration and unit tests in **Cypress** to drive development and verify application behavior by mocking user interactions
- Deployed **React-Router** to enhance UX by reducing unnecessary full-page DOM re-renders and create a smoother transition between pages

**Artemis** | Full-time | **Software Engineer** Apr 2020 ~ May 2021

- Implemented **React Context API** to consume and provide a single source of truth, simplify the data flow between components and maintain a cleaner codebase by removing needless prop drilling from stateless components
- Outlined a modern **Neomorphic UI** with **CSS Grid** and leveraged **CSS Flexbox** to create a responsive, mobile-first UI regardless of screen size
- Selected **Aleph** to build a dynamic React Application and pre-render the application server-side at build time before displaying to the client for quicker initial load times as well as update Artemis, through Hot Module Reloading, during development without having to restart the server on every change
- Integrated **Chart.js** for its minimalistic design and small module size
- Architected a **Deno** server to produce a lightweight application with Deno's module system and safeguarded Artemis by utilizing its security measures to prevent unwanted script injections or file access from modules at runtime
- Administered **Typescript** across the stack to create a more predictable code base through explicit type definitions and greatly improve code maintainability by decreasing type casting errors
- Devised complex traversal algorithms to pinpoint performance and potential bottlenecks of **GraphQL** queries by analyzing depth of nested queries, number of unique database requests, and effective runtime of roundtrip

**Healthy Spot** | Full-time | **Software Engineer** Feb 2018 ~ Dec 2019

- Overhauled application with **React hooks** to share logic between multiple components using custom hooks and increase readability for future developers
- Connected a **MongoDB** to achieve high-speed query responses and lessen the need for complex queries by storing related data in single documents while using **Mongoose** to communicate with the database to ensure database schemas remained consistent when manipulating documents
- Incorporated **Styled-Components** to leverage Automatic Critical CSS benefits by having the client render only what is necessary and further separate CSS styling and Javascript logic within React Framework

**Healthy Spot** | Internship | **Data Engineer** Feb 2018 ~ Dec 2019

- Accompanied brand ambassadors to collect data on people we meet on the streets in an **Excel Spreadsheet**
- Mapped out statistically relevant data within **Python** for brand ambassadors to better target customer acquisition
- Designed a layout with **Javascript**, **HTML**, and **CSS** to better visualize data

### Technical Skills ~

#### Languages ~

JavaScript (ES6+)  
TypeScript  
Python

#### Frontend ~

React (Hooks, Context API)  
React Router  
Redux.js (Saga)  
CSS / SASS / Less / SCSS  
Tailwind CSS  
Styled Components  
HTML  
Electron  
Aleph

#### Backend ~

Webpack  
Node.js / Express  
Deno / Oak  
Websockets  
Auth (cookies, sessions)

#### Databases ~

PostgreSQL  
MongoDB  
GraphQL

#### Testing ~

Jest  
Enzyme  
Supertest

#### Workflow ~

Git / Github  
VS Code  
Agile  
Zeplin.io  
Jira  
Scrum / Kanban  
Figma

### Education ~

**SMC ~ A.S. - C.P.**

Computer Science

#### Codesmith

Advanced Software  
Engineer Residency

### Interest ~

**Museum Docent**

~ NHMLA  
~ LBTP

**Board Gamer**

~ Memoir 44  
~ Zombicide  
~ Arcadia Quest