# Jeff Varela

# Software Engineer

### Contact

Zombie1864@gmail.com (347)-854-4668 Brooklyn, NY github.com/zombie1864 www.portfolio.com LinkedIn

# Skills

JavaScript React/ Redux, JBuilder, jQuery, Ruby, Ruby on Rails, SQL, PostgreSQL, Mongoose, MongoDB Node.js, Express.js, Webpack, HTML5, CSS3, GitHub, p5.js

### Education

App Academy 16 Weeks Full-Time Software Engineering Program, 3% acceptance rate and 1000+ hours of immersive coding May – Sep 2020

City College of New York Bachelor of Science Major: Physics Con. Standard Physics Aug 2016 – May 2020

#### **Enterprise Software**

Microsoft Outlook Microsoft Excel Google Docs Workday

# Foreign Language

Spanish

#### Interest

SWE, Science, Tech Business, finance Software development

#### Hobbies

Cooking Competitive gaming Health and Fitness

## **Technical Projects:**

Physics\_JS – Gravity Simulation (*JavaScript ES6*, *p5.js*, *HTML*, *CSS*) <u>live | GitHub An interactive physics simulator for visualizing the physical phenomenon of gravity</u>

- Implemented vector field properties using JavaScript and p5.js which resulted in particles experiencing vector gravitational forces between a mover and a attractor
- Designed and integrated user inputs to set the properties of particles such as mass and number of particles using p5.js event listeners
- Engineered a multiparticle interaction system by developing algorithms that simulates gravitational forces between a network of particles and collision detection using native JavaScript and p5.js library resulting in a realistic model of particle behavior

Muse of Wire (*Mongoose/ MongoDB*, *Express.js*, *React*, *Node.js*) <u>live | GitHub</u> Website that connects performers, students, and subscribers to the performing arts

- Mentored team performance by testing frontend and backend interfaces during various stages of development using google dev tools to debug coding issues
- Coordinated frontend and backend user authentication using React to update HTML elements on client side and encrypted JSON web token using Axios for server side
- Oversaw and delivered backend and frontend project design architecture using product management principles resulting in a fast paced and open communication environment
- Operated git workflow including pulls, merges, and pushes to the project master branch

JSX Space Time (Ruby on Rails, React / Redux, HTML5, CSS3)

<u>live</u> | <u>GitHub</u>

A full stack clone of PBS Space Time website that streams PBS public broadcasting to visitors of the site

- Incorporated React components to stream online videos using ReactPlayer API to fetch data from database and render online content from 3<sup>rd</sup> party platforms
- Designed user authentication by employing BCrypt encryption on backend server and utilized cookies to persist login data across sessions that allows users' protection when entering sensitive information
- Established custom AJAX request to communicate with PostgreSQL database to persist backend data to frontend for DOM manipulation using react/redux life cycle
- Formalized file tree structure to ensure OOP principle separation of concerns for efficient scalability and task management resulting in time-saving strategy

# **Experience:**

# **Adjunct Researcher**

Spring Semester 2018

The City College of New York Center for Discovery and Innovation

Publicized investigative research into quantum information processing and the
application of quantum based technologies explicated for a general audience under
CUNY Academic Commons: <a href="https://jeffvarela.commons.gc.cuny.edu/">https://jeffvarela.commons.gc.cuny.edu/</a>

### **Accounts Payable Associate**

Sep 2016- May 2017

Teach for America

- Processed day-to-day disbursement transactions into Financial Edge database for major account holders
- Produced internal metric reports using Excel VLOOKUP for task management, resulting an increase in workflow productivity
- Ran custom payment reports using Excel Macros to analyze organization spend trends over a 6-month period, saving 15% on project budgets