Nicholas Cheung

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SKILLS

React, Redux, JavaScript (ES6), HTML5, CSS3, Jira, Figma, Sketch, Express, MongoDB, Node.js, AWS, Ruby on Rails, PostgreSQL, SQL, jQuery, Object-Oriented Programming (OOP), Git, Insomnia, Postman, Webpack, D3.js, Neo4j

EXPERIENCE

Backend Software Engineer

Carboncopies Foundation | *501(c)(3) non-profit supporting work in Whole Brain Emulation*   Nov 2022 - Present

- Developed a programmatic architecture enhancing collaboration between members of Carboncopies by representing goals and milestones as nodes on a graph
- Implemented custom Cypher CRUD operations to manage relationships between successive nodes
- Migrated document based database to more powerful Neo4j graph database, optimizing relationship management and data access

Front End Software Engineer

TBD Health | *Health-Tech startup specializing in at-home STI/STD screening for women*   Oct 2020 - Feb 2021

- Collaborated with founders, CTO, and clinicians, to implement an iterative approach to enhancing UI by rebuilding components with React Hooks, HTML/CSS, performance testing, and debugging in a test production environment to meet the deadline for customer beta testing
- Composed complementary designs and wrote front end logic to render a HIPAA compliant messaging feature for customers and clinicians to Send messages to Clinicians, receive Appointment Requests, and reply to specific messages including STI Test Results and exclude server generated messages
- Created modular Front End code used on Clinician facing companion website for enhanced clinician UI and prevent unauthorized access to specific components, ensuring patient privacy for residents in Washington State
- Sanitized HTML with DOMPurify package to impede cross-site scripting attacks (XSS) to allow Clinicians to send paragraph formatted messages and transmit private links to resources or video conferencing
- Enhanced UI presentation across multiple forms, pages, and error message handling by utilizing 'useEffect' hooks and document methods for responsive web design

PROJECTS

SuperTramp | *(React, Redux, Ruby on Rails 5, HTML, CSS, PostgreSQL, AJAX, AWS, Heroku)*   **live** | **github**
Tribute to popular camping website HipCamp, where users explore available listings across the world

- Implemented Rails backend to connect with AWS S3 for listing and avatar image cloud storage, to increase application scalability
- Identified real world locations with Google Places Autocomplete API which allows users to search for campsites based on reliable geolocations
- Constructed validation logic that checks new bookings against existing bookings to block double bookings and ensure best user experience

San Francisco AQI | *(D3.js, Fetch, JavaScript, HTML, CSS)*   **live** | **github**
D3.js application that utilizes an external API to present real time air quality index and shows previous records of San Francisco's AQI

- Dynamically programmed cloud-shaped widgets via CSS by appending HTML elements to DOM via promises for smooth page loading and update current PM2.5 levels from external API
- Leveraged D3.js to append scatter plot and paths based on over 2,400 data points to D3-appended SVG element to enhance user interactivity via 'mouseover' and 'click' actions
- Restructured CSV data by using D3.js built in methods to improve user data manipulation and interactivity

EDUCATION

AppAcademy - Immersive Software development course with a focus on Full stack web development 2019-2020
University of California, Davis - *BS Microbiology, 2005-2010*