# 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**

gitlab

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

Nov 2022 - Present

- Collaborated with a Product Manager and Frontend Engineer to develop a programmatic approach for improving team collaboration at Carboncopies, leveraging graph-based visualization to represent successive milestones
- Developed and executed a data integration solution by leveraging custom Cypher queries that efficiently export
  data as a CSV file, or load sheet data between Neo4j AuraDB and Carboncopies's Google Share Drive. This
  solution enables seamless creation and updating of nodes and relationships, all within a single streamlined process
- Created comprehensive documentation to guide users through setting up the backend server and utilizing API
  routes. This documentation includes step-by-step instructions, troubleshooting tips, and code examples to ensure
  smooth and efficient usage of the system

#### Frontend 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 <u>website</u> 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

#### 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)

<u>live</u> | 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