Manfred · Cheung

Engineering • Development • Design

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Technical Skills

- Proficient with ES6 JavaScript, React, Bootstrap, Node, JQuery, CSS/SASS, and Git SCM
- Familiar with D3, ThreeJS, and MATLAB
- Experience with of Java, PHP, Ruby, C++, C#, and mySQL

Experience _____

Dash Intern Engineer • PLOTLY

May 2019 - August 2019

- Worked on Dash-Cytoscape and Dash-Bio, open source libraries used for graph theory and bioinformatics visualization respectively.
- Evaluated and integrated 3rd-party plugins into Dash-Cytoscape such as a graph node context menu plugin
- Developed new requested features for Dash such as an addition to Dash-Cytoscape to make Cytoscape responsive
- Optimized in-house components and made contributions to Dash supported 3rd-party open source components for speed, reliability, and readability

Front End Engineering Intern • STACKADAPT

Sep 2017 - Dec 2017, Sep 2018 - Dec 2018

- Led the integration of a semi-autonomous customer service platform improving customer service and reducing operational costs
- · Consolidated authentication for multiple platforms using single-sign-on (SSO) to make navigation between platforms seamless
- Developed reusable components for the in-house React component library and the product itself using good API design principles

Front End Developer • University of Toronto

January 2017 - April 2017

- Performed maintenance on and added significant features to Cytoscape, a widely-used JavaScript graph theory visualisation library
- Investigated how researchers use biological pathway information with the goal of bridging the gap between the data and its users
- Designed Pathway Search, an open-source web application which makes the Pathway Commons biological pathways database searchable and viewable for biologists and researchers, using the React ecosystem
- Developed, tested, and released the pathway-commons JavaScript library on NPM to ease and optimize Pathway Commons queries

Full Stack Developer • PEEKAPAK INC.

May 2016 - August 2016

- Redesigned the architecture of Peekapak's site front-end using React and Bootstrap, increasing code reliability and maintainability
- Rebuilt the way browser-side code interacts with the REST interface, reducing load times from 3 seconds to 0.5 seconds on average
- Created a fully functioning REST interface to handle billing transactions using the polyglot Vert.x framework with Java and Javascript

Web Developer Intern • Rogers Communications Inc.

September 2015 – December 2015

- Created an athlete headshot processing tool which allows images to be validated eight times more efficiently and more accurately
- Devised a WordPress caching fail-safe that reduces site downtime twelve fold in the event the back-end query servers go offline

Junior System Analyst • TekVision Technologies Inc.

January 2015 - May 2015

Projects

UWAFT Vehicle HMI System

- Built a modular interface framework for the UWAFT Chevrolet Blazer Competition Vehicle to serve all current and future connected autonomous vehicle applications without compromising driver safety and cabin refinement
- Wrote interface specifications for both data and interface applications to encourage modularity and reduce implementation costs
- Designed and developed interface applications including an instrument cluster with ThreeJS using human factors engineering principles

More found on Github...

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Systems Design Engineering - BASc (Hons) · University of Waterloo - 2020 Economics - Minor · University of Waterloo - 2020