

Manfred•Cheung

3A • Systems Design Engineering • Economics Minor

📞 +1 (647) 389-4841 • ✉ mj3cheun@edu.uwaterloo.ca • 💻 mj3cheun.github.io • 🌐 mj3cheun

Technical Skills

- Proficient with ES6 JavaScript, Java, HTML, CSS/SASS, PHP, and Git SCM
- Experience with React, Bootstrap, Node, JQuery, D3, WebRTC, and Vert.x technologies
- Working knowledge of C++, C#, Ruby, MATLAB, and MySQL
- Basic understanding of TCP/IP networking and knowledge administering Linux and Windows servers using AWS technologies

Experience

Front End Engineering Intern • STACKADAPT

September 2017 – December 2017

- 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

- Led development of a **web-based data analysis and presentation tool** using PHP, JavaScript, D3, and MySQL

Projects

Experimental Educational Quizzing Application

- Experimented with WebRTC to allow users to administer online quizzes to others **without the need for a centralised server or database**
- Allows the quizzing service to be delivered to users at **very low cost with few compromises** to functionality found in similar services

Space Engineers Avionics Library

- Used vector math to build an **avionics suite with ground crash mitigation** by predicting displacement, velocity, and acceleration
- Wrote a parser which uses **custom markup language to create a configurable user interface** as defined by the user

More found on Github...

Awards And Certificates

Experience Award • NATURAL SCIENCES AND ENGINEERING RESEARCH COUNCIL OF CANADA (2016)

Performance Recognition Award • TEKVISION TECHNOLOGIES (2015)