

# Rhys Bower

bowerrhys@gmail.com • (604) 441-4662 • [www.rhysbower.com](http://www.rhysbower.com)

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## Experience

RedMane Technology Canada

May 2018 – Present

Software Developer

- Identified a critical security vulnerability and developed an approach to address the root cause.
- Designing and implementing a system for automating UI tests of mCase, a case management system, with another developer.

The University of British Columbia

May 2016 – April 2018

Server Admin & Teaching Assistant

- Maintained server infrastructure of assignment submission service for over 4,000 students.
- Extended web portal for course staff to publish graded files for students to download and view.
- Instructed weekly labs to provide students with an opportunity to apply lecture material.
- Assisted instructors during lecture by answering questions and guiding students through problems.

The University of British Columbia

May – August 2017

Software Developer

- Engineered a web app to teach the C programming language using Node and MongoDB.
- Integrated with the UBC single sign on service using SAML 2.0 for authentication and LDAP for authorization.
- Rewrote frontend client using React and Redux to maintain data consistency throughout the application lifecycle and Flow to reduce type errors.

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August 2016 – July 2017

Software Engineer & Co-Founder

- Wrote a PHP backend to parse hundreds of inventory items from internal management systems and display on website with easy search interface for company dealers.
- Created a cross platform iOS and Android app using the Ionic framework with specific focus on authentication with Firebase and payment integration with Stripe and the App Store.
- Designed a marketing website to promote the launch of new client programs.
- Helped close deals worth over thirty thousand in three months.

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## Education

The University of British Columbia

September 2015 – April 2018

Bachelor of Science, Major Computer Science with Distinction

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## Skills

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|--------------|---|--|
| • JavaScript | • Software design patterns                          | • Front-end development with React, Redux & Express      |
| • Java       | • Version control with Git                          | • Relational and non-relational databases (SQL, MongoDB) |
| • PHP        | • Continuous integration with Travis CI and Jenkins |  |
| • C/C++      |   |  |

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## Projects

### Peeled

February – April 2018

Onion Router (Go, Azure)

- Developed an onion router in Go which could be connected to with Google Chrome

### Beros

September – December 2017

Operating System Kernel (C)

- Developed a pre-emptive multitasking, non-re-entrant monolithic kernel in C using a layering method.

### Computer Networking

September – December 2017

Application Protocols (Java, C)

- Implemented the DICT, DNS, IMAP and POP3 protocols with a focus of RFC compliance and error recovery.

### AirBC

January – April 2017

Web App (PHP, MySQL, Twig, jQuery)

- In a team of four, developed project requirements for a mock airline company booking website.
- Designed and implemented a web app framework including a page router and database abstraction layer.
- Built an account system with permissions and hashing to help maintain a secure system.

### InsightUBC

January – April 2017

Web App (Node, TypeScript)

- In a team of two, implemented system to cache input data in JSON for future request performance.
- Developed system to filter course sections based on department, instructor, year level

### Bowerbot

September – December 2016

Personal Automation Bot (Ruby)

- Built a transit pass renewal service by scraping transit webpages and submitting the renewal request.
- Designed feature to detect changes to webpages through visual diffing of rendered webpage.

### Mind the Gap

March – April 2016

Android App (Java)

- Created an Android app to display the London Underground map with routes and train arrival times.
- Parsed data from Transport for London to generate routes based on GPS coordinates and display on the map.