

# Michael Cao

SOFTWARE ENGINEER

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## Programming

**Procedural / Functional / Logical:** C/C++; Assembly (8051,8052,64k,x86); Pascal (Delphi); R; Matlab;

**Dataflow:** SQL (TSQL,MySQL); PHP;

**CLI:** csh; bash;

**Object-Oriented:** C#; Java; Python;

**Web:** HTML/HTML5; CSS/CSS3; LESS; Javascript; CoffeeScript; TypeScript;

**Frameworks:** JQuery; Bootstrap; Express; N-Tier

**Hardware:** VHDL;

## Education

### University of British Columbia

British Columbia, Canada

B.A.Sc. IN COMPUTER ENGINEERING · SPECIALIZATION IN SOFTWARE ENGINEERING

Sept. 2012 - May. 2018

## Work Experience

### Saab Technologies Ltd.

British Columbia, Canada

JUNIOR SOFTWARE ENGINEER

May. 2015 - Sept. 2016

- Created and Integrated starter development documents into media wiki improving performance of new employees from 2 weeks to 2 days.
- Composed modular reports used by customers contributing to an overall customer satisfaction rating above 92%.
- Proposed algorithms used to solve automation and emailing of crucial maritime information.
- Analyzed performance through time spent on programming tasks, using JIRA, leading to an increase in performance by approximately 20%.
- Applied well known software engineering techniques, such as modularity and use cases, improving the existing solid n-tier architecture product.

### Computer for Schools

British Columbia, Canada

COMPUTER ENGINEER ASSISTANT

March 2012 - April. 2012

- Administered refurbished computers resulting in 3,000 shipments and highest shipment of the year.
- Accomplished highest shipment mark in history of organization leading to over 1,000,000 computers shipped overall.
- Proposed communication line resulting in roughly 60 shipments being completed within 2 days.
- Completed inventory count ending with 158 laptops and 215 desktops counted in 30 minutes.

## Technical Projects

### Collaborative Decision Making Maritime Prototype

May. 2015 - Sept. 2016

- Analyzed customer needs, including overall port consumption, resulting with an efficient port emission and cost control solution.
- Applied common software practices, such as agile methodology techniques, leading to a working prototype within 5 days.
- Facilitated daily scrums as scrum master improving communication and concise meetings within a span of 15 minutes.
- Runner up to company hackathon for production quality product proposed as a hot solution for efficient maritime business.

### Image Processing Remote Control Pi Car

Mar. 2015 - Jun. 2015

- Lead a team of 4 computer engineers using management applications, such as trello and slack, resulting in 2 additional features implemented before deadline.
- Implemented algorithms solving communication between FPGA and raspberry pi leading to successful GPIO data communication.
- Optimized bit transfer rate through advanced communication implementations resulting in a speed increase of 6 frames per second.
- Demonstrated iterative testing cycles reducing risk of wasted time and feature creep.

### Wheel of Lunch Github Contribution

Nov. 2014 - Dec. 2014

- Collaborated on a RESTful web application aimed at implementing a front-end click and drag on wheel enhancement.
- Demonstrated complex problem solving skills, such as debugging and abstract modeling, leading to 3 bug fixes and 2 extra enhancements within 2 weeks.
- Executed self-learned knowledge of HTML5, CSS, and Javascript, leading to a fully operational system as an end result.
- Pull request successfully accepted and now shown on main website and Github repository.

## Interests

Software Quality, Software Reuse, Self Adaptive Systems, Hot Programming Languages, Cloud Computing, Software Maintenance, Neural Networks, Complex Networking Systems, Collaborate Software Development, Asynchronous Programming, Hot Frameworks