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;
Technologies/Frameworks: JQuery; Bootstrap; Express; N-Tier;
Hardware: VHDL;

Education

University of British Columbia   *British Columbia, Canada*

M.A.SC. IN COMPUTER ENGINEERING · RESEARCH IN MOBILE SECURITY   *Jan. 2019 - Anticipated Dec. 2020*

University of British Columbia   *British Columbia, Canada*

B.A.SC. IN COMPUTER ENGINEERING · SPECIALIZATION IN SOFTWARE ENGINEERING   *Sept. 2012 - Nov. 2018*

Work Experience

Saab Technologies Ltd.   *British Columbia, Canada*

SOFTWARE ENGINEER   *May. 2018 - Dec. 2018*

- Led a team of 4 software engineers through 2 large-scale software development projects, leading to two successful deployments.
- Wrote scripts to analyze work log times, mitigating risk of budget-creep.
- Apply code review techniques, reducing bug introduction rates by 20%.
- Standardized code formatting and name-space to improve code reading ability, improving productivity of software engineers by 10%.
- Applied knowledge in various domains, including C#, TSQL, and TypeScript, to implement 8 new product features.

UBC Emerging Media Lab   *British Columbia, Canada*

WORK-LEARN INTERN   *Sept. 2017 - Sept. 2018*

- Produced a novel digital pen tracking system used for forward-facing online lectures.
- Evaluated 10 different implementations using a pugh chart, resulting in an optimal solution.
- Wrote hardware interfacing algorithms used for LTE bluetooth communication and infra-red position tracking.
- Optimized hardware interfacing algorithms using concurrent programming, improving frame rates from 20fps to 35fps.
- Led a team of 4 electrical engineers to build a product from the ground up, resulting in a unique patent.

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, leading to an overall customer satisfaction rating above 92%.
- Proposed algorithms used to solve automation and emailing of crucial maritime information.
- Analyzed performance by managing and reviewing time spent on programming tasks using JIRA, resulting in an increased performance of 20%.
- Applied 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 the distribution of 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

Triolingo   *Jan. 2018 - Jan. 2018*

- Led 4 software engineers to produce a real time language translation broadcasting web service to conceptualize 'learning through interaction'.
- Applied software engineering techniques, such as delta debugging and modularization, resulting in a demonstratable product within 10 hours.
- Integrated Google Cloud Services' Translation and Speech Recognition API within a web server using NodeJS.
- Demonstrated and submitted project to NWHacks, resulting in the Wolfram Award.