

ECHTsang@gmail.com
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Graduated

Software developer passionate about futurizing humanity with production experience in embedded systems, web development, desktop applications, and server monitoring.

# **EDUCATION**

# Bachelor of Science in Software Engineering

December 2018
Schulich School of Engineering, University of Calgary
Cumulative GPA 3.38

# **TECHNICAL SKILLS**

| Programming<br>Languages          | <i>Proficient in</i> C, C++, HTML5, CSS3, Golang, Python, Bash, Asciidoctor <i>Prior experience in</i> Javascript, Typescript, Ruby, Java, MIPS Assembly, SQL, PHP |
|-----------------------------------|--|
| Frameworks and<br>Major Libraries | C++  Qt, SDL2, OpenGL, GoogleTest, PhysX Web  Vue, Node, Express, jQuery   |
| Tools                             | Amazon Web Services (AWS) - S3, EC2, IAM<br>Continuous Integration Systems - Bamboo, Jenkins, Travis CI<br>Virtualization Platforms - VirtualBox, ESXi, Docker     |
| Operating<br>Systems              | Windows - XP, 8, 10, Server 2012  Mac OS X - Yosemite to High Sierra  Linux - Debian and Fedora based systems  |

# **WORK EXPERIENCE**

# Calgary Scientific Inc.

 Lead development for a Managed Services offering written in Golang as a new product for the company

 Created tools in Golang and Ruby which included licensing and server management on AWS

 Moved a GPU application into a docker container and revamped how demo kits in the company were created and managed

# May 2016 - May 2018

Professional Services

Associate

demo kits in the company were created and managed

#### SEDS Research Lab

 Assisted a software engineering PhD student at the University of Calgary in research on a new algorithm on release patterns

■ Studied and applied various statistical tests for comparing data

 Developed a tool in Python using PyQt to visualize and execute a new algorithm and various analysis on generated data Research Assistant Jan 2015 - Aug 2015

# **PROJECTS**

# Wiener Takes All

 Developed a 3D driving game rendered using OpenGL in C++ in a small team for the course CPSC 585 at the University of Calgary

 Lead development for the physics system that used Nvidia's open source PhysX library

https://github.com/WienerTakesAll/WienerTakesAll

# Developer

Jan 2017 - April 2018

#### Boresha

 Created and deployed a full stack supply chain software system for milk farmers in Uganda in a team of six for a final engineering project

 Developed an android app using React, a web application using Vue, and backend with Node and PostgreSQL

■ https://github.com/agriculture-capstone

# Developer

Oct 2017 - April 2018

#### Student Organization for Aerospace Research

■ Managed all software for a 30 000 ft hybrid rocket that competed in the Spaceport America Cup 2018

- Introduced standard software practices such as version control, code reviews, and documentation
- Lead development for the avionics systems that were written in C and were responsible for, recovery initiation, data logging, telemetry, and engine control
- Lead development for the launch systems that were written in Golang and were responsible for launch sequencing, automated oxidizer tank filling, oxidizer temperature regulation, and data reporting
- https://github.com/StudentOrganisationForAerospaceResearch

# Software Lead Sept 2017 - Present

## University of Calgary Solar Car Team

 Designed and oversaw software development for the 5th Generation Schulich Elysia Solar Car

 Built a software culture from the ground up that set a standard for version control, continuous integration, linting, and in-depth code reviews centered around mentorship

■ https://github.com/UCSolarCarTeam

### Software Technical Lead

Sept 2016 - Aug 2018

## **AWARDS**

#### CSUS Hackathon Second Place

May 2016

- Within 72 hours, created a Tinder for clothes application based on the theme "First World Problems" in a team of 4 using the Qt App Development framework
- https://github.com/beaesquerra/dressr

## **HOBBIES**

Snowboarding, Video Games, Board Games, Volleyball