# Calvin Brereton

### **Mechanical Engineer**

Currently based in: Sudbury, ON, Canada

: +1 (705) 774-4788

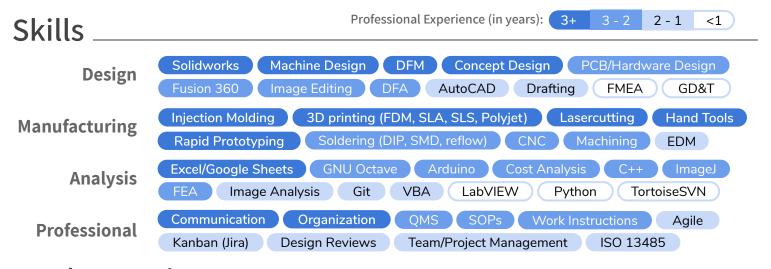
: calvin@brereton.me



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/in/calvinbrereton/



## Work Experience

Apr '20 (

May '17

Aug '16

May '16

Dec '15

Sep '15

Apr '15

Jan '15

#### Mechanical Engineer & Hardware Team Lead | Amina Health

Kitchener, Ontario & San Francisco, California

- Oversaw all hardware-related tasks & operations
  - Complete concept, prototype, & production design of novel cartridge + reader based vitamin measurement system
  - Designed many electromechanical jigs for lab use, manufacturing, test/validation, & assembly
- Designed, produced, and tested dozens of optical system iterations, using various concepts & technologies to achieve increasing performance requirements
- Arranged and managed relationships with numerous suppliers & consultants (local & international)

#### New Products and Process Automation Specialist | Christie Digital Inc.

Kitchener, Ontario

- Lead development of new projector validation automation software written in LabVIEW
  - Coordinated with & directed team members to meet project deadlines and client/stakeholder demands
  - Directed rollout of test automation software, SVN, LabVIEW & LabVIEW best practices within department group

#### **Product Developer Co-op** | Christie Digital Inc.

Kitchener, Ontario

- Designed new projector hardware based on thermal, vibrational, and physical requirements to be 3D printed, injection molded, cast and/or machined for production
- Developed novel method of quantifying and reducing visible projected image vibration by ~80%
- Start-to-finish independent development of C++ application to assist laser projection cinema setup

Omitted: 3 engineering co-ops (Wilco Machine & Mold, Maclean Engineering, Cooke & Denison) + 1 retail job (Pet Valu)

Info available upon request

## Education

#### University of Waterloo

B. A. Sc. in Mechanical Engineering

Waterloo, ON

Sept. 2012 - May 2017

- Graduated with distinction
- Electives focused on:
  - Solid mechanics
  - Automation

## \_\_\_\_\_ Projects

- Designed, iterated on, injection molded, tested, and patented (US20190317115A1) a fully integrated, point of care ferritin blood test
- Designed, fabricated, and programmed a 'Magic Mirror' & a Planck keyboard as Christmas gifts
- Designed custom sensor mounts to optimize VR setup
- Designed & manufactured a custom chicken breast forming mold for a frozen food production line

## Miscellaneous

- Self-taught most software skills
- Interests are varied, but include:
  - o Travel
  - VR & videogames
  - Hiking
  - Music
- Conversational in French