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## Education

- **University of Waterloo** Waterloo, Canada  
*B.A.Sc., Mechatronics Engineering* *Sep 2010 - May 2015*
  - Relevant courses: Autonomous Mobile Robotics, Numerical Control of Machine Tools, Design for Manufacturing, Multivariable Controls

## Work Experience

- **AbCellera Biologics** Vancouver, Canada  
*Mechatronics Engineer* *Oct 2020 - present*
  - Development of high-throughput single-cell screening robots for antibody discovery
- **Magazino GmbH** Munich, Germany  
*Mechatronics Engineer* *Apr 2018 - Sep 2020*
  - Mechanical design of autonomous mobile logistics robots (TORU and SOTO)
  - Responsible for multi-axis suction array based manipulator, including sensor selection
  - Development of software to enable modular robot descriptions, allowing sensors, kinematic chains and collision geometry to be easily modified
  - Multi-team coordination for prototype testing and evaluation in situ
  - Vacation stand-in for hardware team lead, including syncing with C-level, sprint planning and supporting agile workflow
- **Rapyuta Robotics** Tokyo, Japan  
*Mechatronics Engineer* *May 2015 - Feb 2018*
  - Mechanical design of quadrotor drone and docking station
  - Supply chain management, including a trip to China
  - As team lead, successfully delivered autonomous landing feature
  - Developed and presented technical demonstrations for clients
  - Full-stack developer - multivariable controls to computer vision

## Internship Experience

- **Thalmic Labs** Waterloo, Canada  
*Machine Learning Intern* *May 2014 - Aug 2014*
  - Developed software for Myo sEMG-based gesture recognition armband
  - Created internal tools for analyzing algorithm performance
- **Singapore University of Technology and Design** Singapore, Singapore  
*Autonomous Vehicles Research Assistant* *Sep 2013 - Dec 2013*
  - Developed real-time mass estimation algorithm for electric vehicles
  - Conducted real world tests using Mitsubishi iMiEV and Toyota Prius

- **Center for Theoretical Neuroscience - University of Waterloo** Waterloo, Canada  
*Research Assistant* *Jan 2013 - Apr 2013*
  - Researched symbolic representation in high dimensional vector spaces
  - Implemented reinforcement learning algorithms simulating rat behaviour
- **Research in Motion** Waterloo, Canada  
*Digital Signal Processing Intern* *May 2012 - Aug 2012*
  - Wrote software to evaluate 2G/3G signal processing algorithms against 3GPP standard
- **P&P Optica Inc.** Waterloo, Canada  
*Junior Design Engineer* *Sep 2011 - Dec 2011*
  - Created parts, assemblies and technical drawings for spectrometers
- **Canada Center for Remote Sensing** Ottawa, Canada  
*Software Developer Intern* *Sep 2011 - Dec 2011*
  - Developed GUIs for hyperspectral image analysis in C++

## School Projects

- **Automated Truing Stand** Waterloo, Canada  
*Final Year Design Project* *Sep 2014 - Apr 2015*
  - Designed and built an automated fixture for performing maintenance on bicycle wheels
  - Mechanical design in SolidWorks, components machined with mill and lathe
  - Selected actuators (servos, stepper motors) and sensors (light curtain, potentiometers)
  - Programmed maintenance algorithm on BeagleBone Black single-board computer

## Skills

**Programming Languages:** Python, C++, LabVIEW

**Natural Languages:** German (proficient), French (proficient), Japanese (intermediate, N3 certified)

**CAD:** SolidWorks, OnShape

**Operating Systems:** Linux (Ubuntu), MacOS X, Windows

**Lab Skills:** Biohazard safety training (CL2+), cleanroom protocols

**Miscellaneous:** Project planning, agile development, report writing, technical speaking

## Interests

**Sports:** Cycling, weightlifting and bouldering

**Food & Drink:** Eating ramen, drinking craft beer, brewing kombucha

**Other:** Playing guitar, board games, reading