

SUMMARY:

- Proficient in Object-Oriented languages such as C++, R, and RobotC.
- Extensive usage of tools such as Git, HTML5, CSS, Shiny, and Linux.
- Competent in AutoCAD and Solidworks with experience designing small 3D printed items.
- Machining, welding, and chassis design experience on competition robot.
- Strong communication skills and entrepreneurial aspirations.

WORK EXPERIENCE:

Quantitative Analyst – TPM, CPP Investment Board, May – August 2016

- Built web-based macroeconomic modelling software using Shiny web framework for R
- Quantitative research on alternative factor representation for portfolio rebalancing
- Wrote user-oriented documentation for financial modelling in Shiny

Software and chassis engineer – First Robotics Team 4719, September 2012 – April 2015

- Designed, machined, and installed aluminum and Lexan chassis for competition robot.
- Wrote autonomous code in RobotC with sensor analysis for VeX robot competition.
- Implemented innovative flexible-membrane-ball-transfer mechanism on VeX chassis.

Co-founder, CTO of Innovo - Junior Achievement Alberta, October 2013 – March 2014

- Built and debugged website for company using HTML4 and CSS.
- Managed website and IT team of six throughout the program.

PROJECTS:

tonydeng.me – Personal website, January 2015 – Present

- Applied HTML 5, CSS, and Bootstrap practically to build a personal website.
- DNS server and TCP/IP networking experience through website hosting.

EDUCATION:

Candidate for Bachelor of Applied Science - University of Waterloo, September 2015 – Present

- Funding manager for Brain Computer Interface Cybathlon team.
- Optimized fuel cell car for dynamic process switching navigation.
- Built an automated pharmacy using Lego NXT and RobotC.

EXTRACURRICULARS:

Shad Valley Dalhousie 2014 – Shad Valley International, Summer 2014

- Prototyped an automated odour-eliminating compost bin.
- Refined RFID wireless power management system for Shad Cup 2014.

Executive committee and Youth Central Board - Youth Volunteer Corp, October 2012 – June 2015

- Established and led ongoing projects at Glenbow Museum and WP Puppet Theatre.
- Recruited on-stage for volunteer projects during biweekly meetings of over 300 volunteers.

AWARDS:

- FIRST Robotics Competition Western Canadian Regional Champions 2015.
- Best overall project and Best application of scientific principles at Shad Cup 2014.
- Schlumberger Founder's Scholarship.