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celina-tang.com

Celina-Tang

**Celina Tang**

**SOFTWARE ENGINEERING, 1B**

# TECHNICAL SKILLS

**Awards & Honors**

**UW President's Scholarship**

**FIRST Robotics Dean's List Finalist Nominee**

For demonstrating leadership, commitment, passion, and technical expertise

**“Every Piece Has Its Place” Robotics Award and Bursary**

For exhibiting leadership, passion for STEM, and compassion for others

**Engineering Inspiration Award**

For advancing respect and appreciation for engineering in the community

**Top Grades**

In Grade 12 Computer Science, Grade 12 Robotics, and Grade 12 Theory of Knowledge

**Interests**

**Art:** acrylic and watercolour paintings / sketches of sceneries and people

**Games:** Skyrim; Witcher 3; Elder Scrolls Online

* **Languages: LabView, Python, C, HTML/CSS, Energia, C++**
* **Hardware: Texas Instrument roboRIO, cRIO, myRIO, Tiva Lauchpad, BoosterPack, Xbox 360 Kinect**

# Work Experience

**Quanser Consultant Inc., Markham, ON – Software Developer** Jul 2015 – Aug 2015

* Used dead reckoning with XY coordinates from encoders and gyro calculation to accurately track and efficiently transfer robot position over network
* Developed image processing program to analyze RGB data with Xbox360 to demonstrate the extent of its image processing abilities
* Analyzed depth data and successfully manipulated the acquired data to map the surrounding area, which is used in the path planning algorithm
* Presented at National Instrument Week at Texas at the product’s launch demo

# Projec­­t

**BoosterCat** Sep 2016 – Nov 2016

* Developed a game on Tiva Lauchpad with the addition of Tiva Boosterpack using Energia
* Utilized data from BoosterPack’s accelerometer and temperature sensor to provide a more realistic experience of a per simulation
* Made use of the LCD screen on the BoosterPack for displaying game content and UI

# Extracurricular

**FIRST Robotics Team 4001 – Team Captain & Lead Programmer** Sep 2012 – Jun 2016

* Reliably led a team of 85 members to win FIRST Robotics Competition Greater Toronto Central Regional in 2015-2016 and played in quarter-final internationally
* Developed and troubleshot an automated control program written in LabView within six weeks, targeted specific functionalities and improved the performance of the robot
* Presented robot design, programming logic, and mechanics to the judges, led to winning Engineering Inspiration Award, Creativity Award, Industrial Design Award, etc.
* Presented introductory lessons to 40 rookie teams on programming with LabView

# Education

*“Celina was very dedicated and professional at work. She was quite inquisitive when encountered with problems and unfamiliar concepts, which led to great results in her work.” – A. Haddadi, Work Mentor*

**University of Waterloo – Software Engineering, Honours Co-op Program** Class of 2021