Celina Tang

SOFTWARE ENGINEERING

github.com/celina-tang
linkedin.com/in/celina-tang
celina-tang.com
h54tang@edu.uwaterloo.ca

Experience

Accedo – Multi-Platform Developer

Toronto, ON | May 2017- Sep 2017

- Implemented support for podcasts and playlist playback, completed with skipping, replay, and fast-forward functionalities
- Designed dynamic playlist display and optimized focus control for Smart TVs
- Enhanced user login system to incorporate curated playlists and other new personalized features
- Refactored old API structure to increase efficiency and handle premium user accounts

Quanser Consultant Inc. – Software Developer

Markham, ON | Jul 2015 – Aug 2015

- Incorporated dead reckoning with XY coordinates from SPI encoders and gyroscope calculations to accurately track and efficiently transfer robot positions over network
- Developed an image processing program to analyze RGB data with the Xbox360 Kinect
- Analyzed depth data and successfully manipulated the acquired data to map the surrounding area, which is used in a path planning algorithm

FIRST Robotics Team 4001 – Team Captain & Lead Programmer

Thornhill, ON | Sep 2012 – Jun 2016

- Led a team of 85 members to win FIRST Robotics Competition Greater Toronto Central Regional and placed top 10 in the World Championship
- Developed an automated control program with Proportional Integral Derivative control to improved robot performance on scoring by over 40%
- Won Engineering Inspiration Award, Creativity Award, and Industrial Design Award based on innovative robot design, programming logic, and mechanics
- Taught introductory programming lessons to 40 different high schools in Toronto

Projects

RaspyMusic

- Created a home music system hosted on a Raspberry Pi, which allowed users to submit song requests through a web app with a Flask backend
- Used Raspberry Pi's GPIO for song playback

BoosterCat

- Implemented an immersive pet simulator on the Tiva C Launchpad
- Simulated interactions using data retrieved from the accelerometer and temperature sensor
- Utilized the LCD screen for displaying game content and user interface

Languages

- C/C++
- Scala
- Python
- HTML/CSS
- JavaScript
- LabVIEW

Tech/Tools

- Git
- Bash
- Vim
- Intellij

Hardwares

- ARM
- Raspberry Pi
- Arduino
- Xbox 360 Kinect

Education

Bachelor of Software Engineering

University of Waterloo
2016 – 2021

Interests

ART: Watercolor/Acrylic painting, Sketches, Photography

GAMES: Elder Scrolls Five: Skyrim, Beholder, Witcher 3: The Wild Hunt, Don't Starve Together