

YAN-QING WU

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Languages

- C++
- Python
- Swift
- Java
- VHDL
- SQL
- JavaScript

Frameworks

- OpenCV
- Angular
- Socket.io
- jQuery

Tech/Tools

- Git
- Visual Studio
- Xcode
- Android Studio
- Quartus Prime
- PostgreSQL
- WebStorm

Operating Systems

- Linux (Ubuntu)
- Windows
- Mac
- Android
- iOS
- ROS

WORK EXPERIENCE

Research Assistant

Jul 2017 - Aug 2017

DeepSubconscious.ai, Inc. </> Excel, PostgreSQL, MEAN

Waterloo, ON

- Wrote a ROI (Return on Investment) model of work performance for cost-effectiveness analysis
- Conducted market reports on work performance for potential business-to-business customers

iOS Developer

May 2017 - Jul 2017

Ethica Data, Inc. </> Swift, Objective-C, JavaScript, Java

Kitchener, ON

- Created an iOS app for beacon monitoring, connection and configuration; the app supports multiple beacon brands' products simultaneously
- Developed sorting and decryption algorithms on iOS & Android for filtering Ethica-belonged beacons
- Conducted comprehensive market research for all mainstream beacon brands' products
- Wrote technical documentations on beacon activation and configuration for guiding public users

PROJECTS

Real-Time Tennis Ball Tracking </> Python, MATLAB, OpenCV

git.io/v5csa

- Wrote software using contour tracking algorithm for acquiring targets from a camera input
- Implemented image segmentation with watershed algorithm for detecting multiple balls
- Used erosion and dilation for optimizing tracking results

Line-Following Music Player Electrical Design, Electrical Troubleshooting, Circuit Soldering

- Designed electric circuits of the robot, including an R-2R ladder for digital-to-analog conversion to drive a speaker, and signal filtering for enhancing output sound quality
- Assembled the robot by soldering circuit components and wiring up motors, sensors and a speaker
- Participated in the selection of every electronic and mechanical components of the robot

PWYQ Space </> HTML, CSS, JavaScript, Markdown

git.io/v5ccK

- Contributed to open-source Jekyll community by adding new theme features and fixing bugs
- Wrote user documentations for a Jekyll theme in English and Chinese
- Created the static blog site without template

journé </> Python, Java

git.io/v5cFn

- Developed backend server code with hashing and salting for enhancing user information security
- Tested user creation and user validation with numerous test cases

EDUCATION

University of Waterloo

Class of 2021 (expected)

- Bachelor of Applied Science (B.A.Sc) candidate for **Computer Engineering**
- Software team member of **UW ROBOTICS TEAM**
 - Contributed in *Mars Rover 2017* for URC (University Rover Challenge). In URC-2017, we ranked 2nd in Canada, 15th in the world