YAN-QING WU

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Languages	**Frameworks**	**Tech/Tools**	**Operating Systems**
- C++	- OpenCV	- Git	- Linux (Ubuntu)
- Python	- Angular	- Visual Studio	- Windows
- Swift	- Socket.io	- Xcode	- Mac
- Java	- jQuery	- Android Studio	- Android
- VHDL		- Quartus Prime	- iOS
- SQL		- PostgreSQL	- ROS
- JavaScript		- WebStorm	

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 of work performance on 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 scanning, 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 on 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 to *Mars Rover 2017* for University Rover Challenge (ranked 2nd in Canada, 15th in the world)