YAN-QING WU

✉ yanqing.wu@uwaterloo.ca   ⌗ github.com/pwyq   🌐 www.pwyqspace.com

Languages	Frameworks	Tech/Tools	Knowledge
- C++	- OpenCV	- Git	- Data Structure
- Python	- Angular	- Vi / Vim	- Algorithm
- Swift	- Socket.io	- Xcode	- Computer Architecture
- VHDL	- jQuery	- Quartus Prime	- Chinese
- JavaScript		- PostgreSQL	

WORK EXPERIENCE

Research And Development Intern   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

Software Developer Intern   May 2017 - Jul 2017
Ethica Data, Inc. </> Swift, Objective-C, JavaScript, Java   Kitchener, ON

- Developed an iOS app under iBeacon protocol 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, Jekyll, Liquid   git.io/v5ccK

- Created a static blog site without template
- Incorporated features such as lazy-loading of comments, Search Engine Optimization for blog content and request redirection with HTTPS
- Contributed to open-source Jekyll community by adding new theme features and fixing issues

journé - Electric City Hacks </> Python, Java   git.io/v5cFn

- Implemented hashing and salting in back-end 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 Candidate, **Computer Engineering**   Cumulative GPA: 3.61/4

ACTIVITIES AND INTEREST

Power Forward - Intramural Basketball Team   Sep 2017 - Present
Software Team Member - UW ROBOTICS TEAM   Sep 2016 - Present

- Contributed to *Mars Rover Project* for University Rover Challenge 2017 (ranked 2nd in Canada, 15th in the world)

General: pencil-sketching, unequipped underwater swimming, criminal investigation, naval ship