ERIC QIU

1B SOFTWARE ENGINEERING
UNIVERSITY OF WATERLOO

- eqiu1998
- eric-qiu
- eqiu24
- ericqiu.me

CONTACT

(905) 531 7438

eric.qiu@uwaterloo.ca

LANGUAGES & TECHNOLOGIES

- PYTHON
- C++
- C#
- C
- SWIFT
- JAVASCRIPT
- IOS
- XCODE
- ARDUINO
- PEBBLE
- GIT
- SVN

CONTESTS & COMPETITIONS

CANADIAN COMPUTING COMPETITION
- 2016
- 2015

GOOGLE CODE JAM
- QUALIFIED | 2016
- QUALIFIED | 2015

EUCLID MATH CONTEST
- DISTINCTION | 2016
- 2015

INTERESTS

PROJECTS & EXPERIENCES

WILDCATS APP
A MOBILE INFORMATION PORTAL FOR WESTMOUNT
SECONDARY SCHOOL | **2016**
- Written and designed for **iOS** in **Xcode** with **Swift** and **Objective-C**
- Leveraged **MySQL** and **Google API**s to supply school data
- Implemented **Data Management Algorithms** to quickly sort and serve information
- Used by **1500 students** at Westmount Secondary School

LINE FOLLOWING, MUSIC PLAYING ROBOT
UNIVERSITY OF WATERLOO ROBOTICS DESIGN TEAM | **2016**
- Programmed in **C++** for **Arduino**
- As **Software Lead**, programmed two Arduino controllers to follow a line and decode information from the line to play Ode to Joy
- Developed method for Arduino to generate sine wave signals at correct frequency to play proper notes
- **First Prize** in **Waterloo Robotics Team's First-Year Competition**

ECOO TEAM PROGRAMMING CONTEST
PROVINCIAL CONTEST | **2015 & 2016**
- Finished as **Semifinalists** both years
- Directed 4-man team as **Team Lead**
- Solved problems by implementing **Search, Sort, Pathfinding Algorithms** in **C#, Python,** & **C++**
- Applied **Bitwise Logic** & **Dynamic Programming** to **optimize** solutions for given runtime constraints

SOCIAL MEDIA CYBERBULLYING FILTER
GOOGLE SCIENCE FAIR | **2015**
- Developed sentence parsing system in **C#** and **Python** to detect key terms in social media posts
- Implemented search and index algorithms to manage list of key cyberbullying terms

EDUCATION

CANDIDATE FOR BACHELOR OF SOFTWARE ENGINEERING
UNIVERSITY OF WATERLOO | 2016-2021

EMPLOYMENT & VOLUNTEERING

PIANO & SUBSTITUTE MUSIC THEORY TEACHER
ONTARIO CONSERVATORY OF MUSIC | MAY 2013 - JUL 2016
- Mentored students age 6 - 50 in private and classroom lessons
- Corresponded with parents weekly to outline student progress
- Developed materials to help engage younger students in Music Theory & Piano concepts

MATH CLASSROOM ASSISTANT & TUTOR
GEORGE L ARMSTRONG SCHOOL, HWDSB | SEP 2012 - JUN 2013
- Tutored students in grades 6 - 8
- Provided individual tutoring to students
- Assisted teachers with lesson materials

AWARDS

UNIVERSITY OF WATERLOO
PRESIDENT'S SCHOLARSHIP OF DISTINCTION 2016
ONTARIO PROFESSIONAL ENGINEERS FOUNDATION ENTRANCE SCHOLARSHIP 2016

CENTRE FOR EDUCATION IN MATHEMATICS & COMPUTING
CERTIFICATE OF DISTINCTION, EUCLID CONTEST 2016
SCHOOL CHAMPION, CANADIAN SENIOR MATH CONTEST 2015