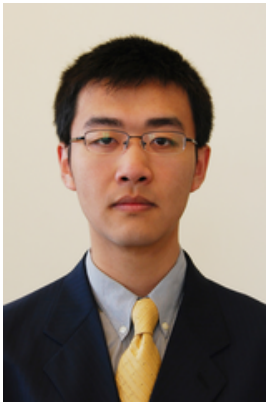

BoyangYan

I am interested in Robotic System and Computer Vision. Currently, I am focused on software Testing (Metamorphic Testing) in these two aspects. When I have seen KNAPP website, I found my research interesting point highly regards to the industrial logistics system. So, I am very interested in this position.

Experience

2018.12 - Now **Algorithm Engineer** Peng Chen Laboratory, Shenzhen, China
Flight Control System Testing for fixed-wing UAV(Ardupilot), 3D Printing

Education

2018.1 - 2018.11 **Master of Research (Computer Science)**
University of Wollongong, Australia
Metamorphic Testing (Software Testing)
Main subjects: Software Testing, Operational Research, Big Data Analysis, Natural Language Processing
Main Achievement: One published paper, Metamorphic Relations for Data Validation: A Case Study of Translated Text Messages

2014.3 - 2017.12 **Bachelor of Computer Science** University of Wollongong, Australia
Major in Software Engineering
Main subjects:
Algorithms and Data Structures(80 Distinction)
Object and Generic Programming in C++ (75 Distinction)
Interactive Computer Graphics (75 Distinction)
Multimedia Computing (73 Credit)
software Engineering Practices & Principles (82 Distinction)
Score Progress:
year 2014 avage score: 63.25
year 2015 avage score: 45.14
year 2016 avage score: 57.00 - final project got 82 distinction
year 2017 avage score: 76.25 - distinction
Main Achievement:
1. The best final project prize (Human Research Management System base on Web)
2. First Three Semester had: Undergraduate Excellence Scholarship

2013.3 - 2014.3 **English for Tertiary Studies** University of Wollongong College, Australia
Main subjects: Academic English

2011.9 - 2013.3 **Bachelor of Business Management**
China University Of Mining And Technology
Average mark of 91% . Most of courses got High Distinction
Main subjects:
Mathematics 1: Algebra and Differential Calculus score: full mark
Mathematics 2: Series and Integral Calculus score: 84

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Web & Git
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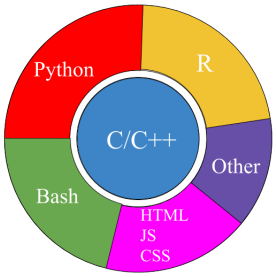
yanboyang.com

Programming



OS Preference
GNU/Linux ★★★★★
Unix ★★★★☆
MacOS ★★★☆☆
Windows ★☆☆☆☆

Languages

Chinese ★★★★★
English ★★★★☆

Publications

Boyang Yan, Brian Yecies, Zhi Quan Zhou: Metamorphic Relations for Data Validation: A Case Study of Translated Text Messages. IEEE/ACM 4th International Workshop on Metamorphic Testing (MET '19), in conjunction with the 41st International Conference on Software Engineering (ICSE '19), Montreal, Canada; 05/2019

Academy Congress and Conference

May 26, 2019
Paper Presentation - Title: Metamorphic Relations for Data Validation: A Case Study of Translated Text Messages ICSE, Montreal, Canada

August 11, 2017 **showing my final year project about Human Resource Management System based on Web (whole swap card subsystem and database are finish independently)**
IEEE Sections Congress (SC2017), Sydney, Australia

Certifications

2017 **Amateur Radio Operator's certificate of proficiency (Standard)**
The Wireless Institute of Australia (WIA)

2016 **Ross a. Hull memorial Vhf-Uhf contest**
The Wireless Institute of Australia (WIA)
Twelfth Place in Section A (Analog Modes, Best 7 Days) and Twelfth Place in Section C (Analog Modes, Best 2 Days)

2014 **Amateur Radio Operator's certificate of proficiency (Foundation)**
The Wireless Institute of Australia (WIA)

2010 **The Second Place Prize Awarded, Tianjin School Sports Competition Award "92" National Games Tianjin**
Tianjin Basketball Tryouts, China
High school men's Group B. Primary and Secondary (Vocational) School Basketball Games. Have got the second grading certificate and title

Training Courses

18.11.2018 **Sololearn(C++)** Sololearn

2.9.2017 **Sololearn(Python3)** Sololearn

2012 **Intel innovation in EDUCATION** Intel Learn Program (Technical and Community)

Extracurricular Activity

I am a big fan of amateur radio (ham radio). This is my biggest extracurricular activity. In 2014, I have got my first amateur radio license (foundation license). At that time, my purpose is talking and learning English because I can talk or send a message with all over the world radio amateur. After my purpose is changed. I have found amateur radio have bigger relate with my major, computer science. Amateur radio is not only sent morse code, which becomes history. I am currently got my standard license. So, I am more and more using new technology for radio. Such as SSTV for the picture, D-STAR for digital mode voice transfer and data transfer. Even International Space Station(ISS) also have got amateur radio FM repeater. I am more and more focus on technique part for radio. I also take part in some amateur radio competition. For example, ross a. Hull memorial vhf-uhf contest. I have got Twelfth Place in Section A (Analog Modes, Best 7 Days) and Twelfth Place in Section C (Analog Modes, Best 2 Days)). This is only a part of my amateur radio activity.

Research & Project

2017 **Swap Card System**

University of Wollongong, Australia

Swap card system for record attendance. I have using Arduino, raspberry pi, the level shifter, LCD controller and LCD screen. In raspberry pi, I have written by Python, using HTTP socket connect with Java backend. And using I2C bus connect with Raspberry Pi, Arduino and LCD controller. Level shifter for convert different volt in the I2C bus. RFID sense connects with Arduino. In Arduino, I have written by c++.

2017 **OPENGL construct a room**

University of Wollongong, Australia

Using OPENGL construct a room with four walls and a floor, as well as two paintings, which are hung on separate walls, light, table and desk and so on.

2017 **OPENGL planetary system**

University of Wollongong, Australia

OpenGL program for a planetary system

Github Link:
https://github.com/yanboyang713/openGLPlanetarySystem.git

2016 **5th order low-pass Butterworth filter**

University of Wollongong, Australia

Using SDL develop a program to process signal using the 5th order low-pass Butterworth filter and to play the processed signal.

Github Link:
https://github.com/yanboyang713/butterworthFilter.git

2016 **image histogram equalization**

University of Wollongong, Australia

Using SDL develop a colour image display and enhancement program. The program enhances an image using histogram equalization and displays the enhanced image.

Github Link:
https://github.com/yanboyang713/histogramEqualizationImage.git

2018 **Metamorphic Testing in Text comparison tool**

University of Wollongong, Australia

Using metamorphic testing method for testing DIFF utility quality. I have totally create 10 metamorphic relations.

2017 **Testing in machine translation software**

University of Wollongong, Australia

Using metamorphic testing method for testing and compare Google, Bing and Youdao machine translation software quality.

Github Link:

https://github.com/yanboyang713/Metamorphic-Testing-of-Machine-Translation-Software.git

2017 **Rainbow Table**

University of Wollongong, Australia

Implementing a rainbow table for Anti-Hash Function write by c++

Github Link:
https://github.com/yanboyang713/rainbowTable.git

Referral Info

- George Zhou <zhiquan@uow.edu.au> Research Project
- Jack Yang <jiey@uow.edu.au> Research Project
- Eve Shaw <eve@uow.edu.au> English aspect
- Mark Freeman <mfreeman@uow.edu.au> undergraduate final project
- Casey Chow <caseyc@uow.edu.au> computer graphics aspect
- Tianbing Xia <txia@uow.edu.au> base programming aspect and database aspect

July 5, 2019

Boyang Yan