

# Qingnan Duan

226-748-3807 duanqn\_own\_1@yeah.net

Waterloo, Ontario

---

## Education

### **Tsinghua University, Beijing, China**

*Department of Computer Science and Technology, Computer Science and Technology* Aug 2014 – July 2018

- Overall GPA: 91 / 100 Rank: 26/152
- Core courses: Fundamentals of Programming (100) Object-Oriented Programming (96) Programming and Training (97) Data Structures (93) Formal Language and Automation (96) Principles and Techniques of Compilers (97) Software Engineering (96) Network Programming (95) Operating Systems (90)

*School of Economics and Management, Economics (minor)* Sept 2015 – July 2018

- Overall GPA: 84 / 100
- Core courses: Principles of Economics (86) Intermediate Macroeconomics (84) Money and Banking (85) Econometrics (87) Labor Economics (89)

### **University of Waterloo, ON, Canada**

*Math 3+X program, Computer Science* Sept 2017 – April 2018

- Courses: Concurrent and Parallel Programming (82) Computer Security and Privacy (88) Software Requirements: Specification and Analysis (95)

*Cheriton School of Computer Science, MMath* Sept 2018 – present

## Research Experience

### **Tsinghua University**

*Institute for Network Sciences and Cyberspace* Oct 2016 – June 2017

- Studying software defined network and network function virtualization
- Analyzing the advantage and disadvantage of using P4
- Adding support of stateful network functions to P4 language
- Implementing a prototype compiler which can process P4 with stateful support

*Fault tolerance implementation on consensus system* Jan 2018 – April 2018

- Learning about traditional consensus protocols like Paxos and Raft
- Implementing fault tolerance mechanism on a research project, Carousel

## Internship

### **Microsoft**

*Windows Devices Group Asia Experience, Beijing* June 2017 – Aug 2017

- Tested potential new features by implementing prototypes
- Connected a SwiftKey service to Windows 10 IME
- Participated in designing multi-device cross-platform roaming service for generating personal input candidates

## Volunteering and activities

*Campus Tour Guide Volunteer Oct 2014*

- Showing the tourists the historic buildings in Tsinghua University

*Tsinghua Summer School Tutor Aug 2015 & Aug 2016*

- In charge of a class of 30 high school students who come from different provinces of China
- Leading high school students to experience life in Tsinghua and learn the virtue of Tsinghua

*Tsinghua Basketball Association Oct 2014 – June 2017*

- Officiating basketball games of different levels, at Tsinghua University
- Certificate of class-2 basketball referee, issued by China Basketball Association

*Sommelier at Concours Mondial de Bruxelles May 2018*

## English tests

*TOEFL 110/120 April 2017*

## Skills

- Programming Language: C/C++, Python, Java  
Also know about HTML, JavaScript, MATLAB, x86/MIPS Assembly
- Mobile Programming: Android
- Hardware Programming: VHDL
- Operating System: Familiar with both Windows and Ubuntu
- Version Control: Git

## Scholarship and Awards

- Scholarship of Academic Excellence Dept. of CST, Tsinghua University, 2014-2015
- 2nd place in Team Programming Contest (hosted by Department of Electronic Engineering, Tsinghua University)
- Distinguished Graduate Dept. of CST, Tsinghua University, 2018
- David R. Cheriton Graduate Scholarship School of Computer Science, U of Waterloo, Fall 2018

## Other

GitHub: <https://github.com/duanqn>

LinkedIn: <https://www.linkedin.com/in/%E6%B8%85%E6%A5%A0-%E6%AE%B5-90b472a4/>

GPG public key: [https://github.com/duanqn/Publish/blob/master/Public%20keys/GPG\\_public.pub](https://github.com/duanqn/Publish/blob/master/Public%20keys/GPG_public.pub)