

Haotao Lai (Eric)

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Education Background

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|--|-------------------------------|
| ○ Concordia University
<i>Master in Computer Science, GPA 3.67</i> | Montreal
2016–now |
| ○ Guangzhou University
<i>Bachelor in Engineering, GPA 80%</i> | Guangzhou
2012–2016 |

Professional Skill

- **Programming Languages:** Java, C++, JavaScript, Python
- **English proficiency:** IELTS 6.5 (no band below 6.0)
- **Hardware development:** STM32, AVR, Arduino, 80C51

Award

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|---|------|
| ○ Concordia University Merit Scholarship (5000 CAD) | 2018 |
| ○ Guangzhou University outstanding graduation project award | 2016 |
| ○ Guangzhou University the 2 nd place scholarship (2000 CNY) | 2016 |
| ○ Guangzhou University the 3 rd place scholarship (1000 CNY) | 2015 |

Graduate Academic Experience

Implement a reliable data transfer protocol on top of UDP.....

Team Project (1st author) 2017 fall

GitHub: <https://github.com/laihaotao/COMP6461>

- Implement a http client using TCP
- Implement a http file server using TCP
- Implement a multithread event based request handling mechanism
- Implement a reliable layer replaces the TCP used above

Pokemon-Go-Back card game.....

Team Project 2017 summer

GitHub: <https://github.com/laihaotao/COMP354>

- Project leader, organizer and the (2nd author) code contributor
- Design the project structure, code manager, bug report and communication procedure
- Implement the select deck mechanism
- Implement the some useful tools for other contributors
- Design the testing process and build the testing framework

Implement a compiler.....
 Team Project (1st author) 2016 winter
 GitHub: <https://github.com/laihaotao/COMP6421>
 ○ Implement a lexical analyzer
 ○ Implement a syntactic analyser
 ○ Implement a semantic analyser
 ○ Implement a code generator
 ○ combine all of them into a completed compiler

Undergraduate Academic Experience

A kind of weeding robot based on computer vision.....
 Individual Project 2016.03 – 2016.06
 ○ Outstanding graduation project award (rank: 2 / 200)
 ○ Individually developed the whole system contains: Android, VB.net, Halcon, Network communication
 ○ Video link (YouTube) to show the project: <https://www.youtube.com/watch?v=4Qx2GHp2ZII>

Internet express system.....
 Team Project (1st author) 2015.01 – 2016.06
 ○ Received 10,000 CNY funding and a patent authorization (CN204576611U)
 ○ Team leader of the whole project
 ○ Created intelligence-based interactive system (both Android client and Java EE server)
 ○ Implemented communication protocol between android and STM32 which is the control unit

Obstacle avoidance remote control robot.....
 Individual Project 2015.09 – 2016.06
 ○ Using RS485 communication protocol to organize the sensor network
 ○ Using Visual Basic for master computer's UI and control system
 ○ Used three casters for implementing moving system
 ○ Design obstacle avoidance algorithm

Special projects for blind and disable children.....
 Team Project (2nd author), funded by Guangzhou Education Bureau 2014.09 – 2015.06

Entertainment based system (dancing mat) for blind children
 ○ Developed using STM32, SD card, I2C communication protocol and DMA
 ○ Through investigative research done at the Guangzhou Blind Children School to better learn how to design communication for children's needs

Disability assistant page reader
 ○ Applied mechanical engineering design as 1st author for the linkage, and fabrication of the synchronous belt pulley and the motor

Forklift truck system.....
 Team Project (1st author) 2013.09 – 2014.06
 ○ Developed (as 1st author) using Arduino, Bluetooth, android, and 3D printer
 ○ Received a 2nd place award in school project competition
 ○ An patent authorization (CN104102990A)