

# Johnson (Sheng) Zhong

1105 1101 Bay St • Toronto, ON • M5S 2W8

CELL (514) 819-3297 E-MAIL [johnsonzhong@hotmail.ca](mailto:johnsonzhong@hotmail.ca) PORTFOLIO [johnsonzhong.me](http://johnsonzhong.me)

---

**EDUCATION**      **University of Toronto**      2013 - Present  
Engineering Science (Robotics specialization) class of 2017  
GPA: 3.87/4.0

---

**SKILLS**

- **Programming** | C++ | Python | C | Lisp || Git | SVN | Mercurial
- **Web development** | Django | HTML | CSS | Jekyll | Javascript
- **Visual Design** | Inkscape | Photoshop | SolidWorks | OpenSCAD

---

**EXPERIENCE**      **Autonomous Interacting Robots**      Apr 2015  
Team of three – more at [johnsonzhong.me/projects/robot](http://johnsonzhong.me/projects/robot)

- Two mobile robots playing connect-4 on a randomized gamefield
- Responsible for microcontroller (Arduino) and all logic
- Fastest ball retrieval time (3 ball/min vs average 0.5 ball/min)

**SAL - Algorithms and Data structures library**      Jan 2015  
Solo – more at [johnsonzhong.me/sal/](http://johnsonzhong.me/sal/)

- Header only C++ template library
- Simple and clear implementations of efficient algorithms
- User friendly and practical introduction to algorithms (used by classmates)
- Interactive algorithms tester

**Language Interpreter (Lisp)**      Aug 2014  
Solo – more at [johnsonzhong.me/projects/clisp](http://johnsonzhong.me/projects/clisp)

- Small and fast at around 550 lines of C++
- First class functions, tail call optimization for recursion
- Lexically scoped to prevent name clashing inside called functions
- Automated garbage collection with RAI

**Website Hack**      Dec 2013  
With partner – more at [johnsonzhong.me/evaluations/skulecourses/](http://johnsonzhong.me/evaluations/skulecourses/)

- Major website used by Toronto students to download past exams
- Found security loophole that allowed code injection
- Prompted maintainers to fix issue

**IEEEXtreme Programming Competition**      Oct 2013 | 2014  
Team of three – Virtual Vagrants [placement](http://johnsonzhong.me/evaluations/skulecourses/)

- Solved programming challenges within 24 hours
- Created random maze generator and maze AI
- Placed **43**/7500 (6<sup>th</sup> in Canada) in 7.0 | **52**/unknown (8<sup>th</sup> in Canada) in 8.0

---

**INTERESTS**      | Hacking | Graphics Design | Chess | Badminton | Wushu |