# Jaekyong (Jae) Choi

+1 519 729 9605 | http://www.jaechoi.xyz/ | j94choi@uwaterloo.ca

## SKILLS

### PROGRAMMING

Proficient:
C • C++ • Java • Python
Familiar:
C# • JavaScript • TypeScript
HTML • CSS • SQL • Scheme
Bash • Lua • Assembly • LaTeX

### SYSTEMS

Linux • Windows • OS X • Android

### TOOLS

Git • Android Repo • Mercurial
Android Studio • Unity • Jenkins
JIRA • Vim • Eclipse • Visual Studio

## EDUCATION

### UNIVERSITY OF WATERLOO

Candidate For Bachelor of
Computer Science
Sept 2014 - present | Waterloo, ON

Operating Systems
Algorithms & Data Abstraction
Computer Organization and Design
Object-Oriented Programming
Functional Programming
Combinatorics & Optimization

## HONORS & AWARDS

### PRESIDENT'S SCHOLARSHIP OF DISTINCTION

Sept 2014
Awarded to students with admission
averages of 95+%

### THE JOHN MACPHERSON MEMORIAL SCHOLARSHIP

Sept 2014
Awarded to a student with excellent
performance in mathematics and
physics

## INTERESTS

Data Analytics • Machine Learning
App Development • Optimization
Software Architecture • Reversing
Music Production • Guitar • Fitness

## WORK EXPERIENCES

### BLACKBERRY | Systems Software Developer

Sept 2016 – Dec 2016 | Waterloo, ON
- Designed the Media Browser interface and wrote AVRCP protocols using new Android APIs for Bluetooth interoperability
- Implemented Bluetooth and NFC restrictions in the Android framework settings and UI to account for device policy
- Used Black Box Debugging techniques to fix Bluetooth defects created by foreign car kits
- Technologies: Java, C/C++, SQL, XML, Git, Linux, Android, A2DP/AVRCP, NFC

### IRDETO | Software Engineer

Jan 2016 – Apr 2016 | Ottawa, ON
- Created an automated crawler and tracker that identifies thousands of files and active IP addresses on the eDonkey Network using the Windows API
- Wrote Python scripts to analyze millions of disorganized torrent data
- Investigated and fixed defects generated by Apache services such as Kafka and Spark in Mesosphere DC/OS
- Technologies: C/C++, Python, Git, Win32, Linux, TCP/IP, DC/OS, AWS, VS2010

### IMAGINE COMMUNICATIONS | Full Stack Developer

May 2015 – Aug 2015 | Waterloo, ON
- Developed a web-based configuration application for a back-end service using RESTful and WebSocket APIs
- Implemented a diagnostic logging service using Angular directives and TypeScript
- Integrated CefSharp to embed Chromium into a WPF C# application
- Technologies: AngularJS, Node.js, TypeScript, LESS, C#, SQL, Mercurial, VS2013

## PROJECTS

### RAYTRACERS
- Built a RayTracer in Python using Pygame module that loads and renders .obj files
- Followed up with an upgraded RayTracer that can save .bmp images in C++

### ONLINE UNITY GAME AI
- Created a Hearthstone (Online Video Game) client-injectable dll in C#
- Implemented custom AI knowledge capable of performing at a top 50% player level

### MIPS ASSEMBLER
- Wrote an assembler for MIPS assembly language in C++

### CHESS
- Developed a Chess game that supports four levels of heuristic AI, custom boards, saving & loading and score-keeping in C++
- Maintainted UML diagrams to organize project structure

### AERIAL VIEW SHOOTING GAME
- Developed an aim-and-shoot aerial view game in C# using Unity with three other members at a Hackathon