

# Jaekyong Choi

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## Skills Summary

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**Languages:** C, C++, C#, Java, Python, JavaScript, HTML5/CSS3, SQL, Bash, Lua, Lisp, Scheme, R, Assembly

**Systems:** Linux, Windows, OS X, Android

**Tools:** Git, Subversion, Mercurial, Android Studio, Unity, Wireshark, Vim, Eclipse, Visual Studio, Jenkins, JIRA

## Experience

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### BlackBerry

Waterloo, ON

Systems Software Developer

Sept 2016 - Dec 2016

- Designed and wrote AVRCP protocols using Android APIs to enable media browsing via Bluetooth for latest BlackBerry phones
- Implemented Bluetooth and NFC policy restrictions in the Android framework settings and UI
- Improved interoperability and fixed bugs in the Bluetooth protocol stack through black box debugging using Wireshark
- **Technologies:** Java, C/C++, SQL, XML, Git, Linux, Wireshark, Android, A2DP/AVRCP, NFC

### Irdeto

Ottawa, ON

Software Engineer

Jan 2016 - Apr 2016

- Created an automated crawler on the eDonkey P2P Network that tracks infringed content and IP addresses
- Wrote Python scripts to analyze millions of disorganized torrent data
- Investigated and fixed errors generated by Chronos and Marathon jobs on Mesos
- **Technologies:** C/C++, Python, Git, Win32, Linux, TCP/IP, Mesos, AWS, VS2010

### Imagine Communications

Waterloo, ON

Full Stack Developer

May 2015 - Aug 2015

- 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 Chromium Embedded Framework into a WPF C# application
- **Technologies:** AngularJS, Node.js, TypeScript, HTML5/CSS3, C#, SQL, Mercurial, VS2013

## Projects

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### Dating Application, Android

Work In Progress

In progress of creating an Android dating application using the Gale-Shapley algorithm

### Online Unity Game AI, C#/Unity

September 2016

Built a Hearthstone client-injectable dll in C# with custom AI capable of performing at a top 50% player level

### MIPS Assembler, C++

June 2016

Wrote an assembler for the MIPS assembly language that supports native instructions

### Raytracer, C++/Python

March 2016

Created a simple Python raytracer using Pygame module that loads and renders .obj files

Followed up with a C++ raytracer that can rasterize objects in 3D space with shadows, reflections and anti-aliasing

## Education

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### University of Waterloo

Waterloo, ON

Candidate for Bachelor of Computer Science; Minor in Combinatorics and Optimization | 3A

Sept 2014 - Apr 2019

## Honors & Awards

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- **President's Scholarship of Distinction:** Awarded to students with admission averages of 95+%
- **The John MacPherson Memorial Scholarship:** Awarded to a student with excellent performance in mathematics and physics