Andrew Choi



NATION OF NATIONAL PROPERTY OF

SOFTWARE ENGINEER | FULL STACK ENGINEER

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QUALIFICATIONS

- Languages: C, C++, C#, Java, JavaScript, Python, Swift, PHP, Ruby, MATLAB, Bash
- Data Engineering: Knowledgeable in SQL, Hadoop, MongoDB, CloudantDB, NoSQL, MS SQL Server
- Environment & Libraries: iOS, OS X, Windows, Android, Linux, Unix, jQuery, AngularJS, Node.js, ActionHero, D3
- Tools & DB: Visual Studio, Eclipse, Xcode, Sublime Text, Atom, Git, NPM, IBM Bluemix, Watson APIs
- In all co-op work terms, received employer evaluations of Outstanding Performance*, a rating reserved for only those few students who have distinguished themselves by their unique contribution or exceptional performance.

PROFESSIONAL EXPERIENCE



IBM

Software Engineer - iOS

May 2016 - August 2016

Outstanding Evaluation*

- As a full-stack developer, took full ownership over developing the ODIN: Recruiter's App on iOS, IBM Guest Check-In iOS app, Node.js & Laravel Digital Innovation Lab app, and Watson Family Financial Advisor (Machine Learning), and Watson Conversation iOS app interface from inception to execution.
- Environment & Frameworks: AngularJS, BackBoneJS, KnockoutJS, Node.js, MobileFirst, DeveloperWorks, PHP Laravel, as well as Watson APIs.
- Achievements: Production of high-importance iOS prototype & PoCs (Proof of Concepts) under very tight time constraints. Let to demoing them to multiple IBM clients including Scotiabank and RBC.



<u>IBM</u>

Software Engineer - Android

January – April 2016

Outstanding Evaluation*

- Took full initiative over integrating and incorporating untouched hardware-software technologies, including the Texas Instrument's SimpleLink™ Bluetooth Smart® / Multi-Standard SensorTag CC 2650 to implement an IoT device prototype.
- Leveraged and utilized the low-power BLE MEMS sensors as well as Bluetooth RSSI values in order to implement PoCs and create real-life use cases.
- Environment & Frameworks: Server J2EE, Spring Framework, Hibernate, Node.js, Python, PHP. Solution methodologies Waterfall, Agile, Extreme Programming. Java, Android Studio IDE.
- Achievements: Completion of high-priority Android prototype under very tight deadlines. Let to demos to clients of the company.



BLACKBERRY

Software Engineer

May – August 2015

Outstanding Evaluation*

- Carried out full-stack development in implementing the enhancements to critical BB10 apps (HOTS) & web apps (BBAR Client & GreenState) that support major BlackBerry Service Product offerings, including Enterprise, Messaging, Handheld.
- Collaborated with BlackBerry Service Measurement of program managers and analysts to ensure the timely delivery of
 enhancements following a weekly Agile sprint cycle. Worked with BBM features, including BBM Meetings, Protected,
 Stickers, Voice Chat, Cross Platform Capability, as well as RIM internal JIRA.
- Fully revamped BlackBerry server web app that 20+ product managers and analysts use, for a mobile-friendly UI & UX.
- Environment & Frameworks: JQuery, Node, MS SQL, PHP, D3, HighCharts, NPM, Moment.js, Angular, Python, GitLab.

UNIVERSITY OF WATERLOO

September 2014 – April 2019

Bachelor of Applied Science: Computer Engineering Honours | 3rd Year

- Maintained Excellent Academic Standing / Good Academic Standing while involved in rigorous and competitive soccer.
- <u>Midnight Sun Solar Rayce Car Club:</u> As a collaborative computer engineer of the electrical sector, utilized the Altium software for electronic PCB design. Took on soldering chips and microcontrollers on board.

SCHOLARSHIPS & AWARDS

WATERLOO ARTHUR F. CHURCH ENTRANCE SCHOLARSHIP

September 2014

- Highest scholarship offered by University of Waterloo to one student in the Computer Engineering class of 2019.
- Presented to student w/ exemplary extracurricular activities/exceptional <u>academic standing</u> upon entrance (<u>99% average</u>).

VKCSF SCHOLARSHIP 2015 - 2016

September 13, 2015

• Annual major scholarship given to 15 students currently enrolled in university, based on excellence in academics, athletics, artistic, volunteer, and well-roundedness. Invitation to the Hilton Hotel as a guest piano solo player.

SOFTWARE PROJECTS

DIGITAL INNOVATION LABORATORY

July 2016

PHP, Laravel, JavaScript, CSS, HTML 5

• The Innovation Lab Portal (http://digital-innovation-lab.mybluemix.net/) utilizes PHP Laravel Framework in order to display and exhibit projects completed or ideas proposed by IBM co-ops as well as full-time IBMers.

ODIN: RECRUITMENT APP

July 2016

iOS, Node.js, ActionHero.js, NoSQL, CloudantDB, Bluemix, Swift

• Recruiters wants to hire the best and brightest that fit with the company's culture and will become great assets on critical, impactful projects. The Project ODIN: RECRUITMENT APP will allow a mobile application to capture feedback and status of candidates and keep up-to-date with all news related to recruitment.

SENSORTAG LUGGAGE TRACKER

February 2016

IoT, Android, Java, TI SensorTag

• Utilizing Texas Instrument's TI CC2650 SensorTag model, the Android prototype of this feature is built for airline customers. For this PoC, we've used experimented with many different sensors and algorithms within this powerful chip from Texas Instrument. The concluding product is an ad hoc application that delivers GPS-like tracking system, but using RSSI value of a bluetooth device. The SensorTag Luggage Tracker is also an example of development within the Internet of Things (IoT) industry.

FAMILY FINANCIAL ADVISOR

April 2016

JavaScript, CSS, HTML 5, Bluemix, Speech-to-Text, Text-to-Speech, NLC

• The Family Financial Advisor Application utilizes Watson services and APIs in order to optimize and enhance your family financial management. Using SDK for Node.js as well as Watson's Dialog API, Watson engages in a conversation with you to fulfil your financial management needs. It is built on IBM Bluemix, utilizing the Cloud Foundry, an open source cloud service (PaaS).

ANDREWCHOI.ME January 2015

JQuery, Git, Node.js, D3js, JavaScript, CSS, HTML 5, UI / UX

• Constructed a website utilizing Bootstrap, Sublime Text, CSS, JavaScript, JQuery, Git, Node.js, and D3.js framework.

PARCEL DISTRIBUTION PROGRAM

November 2014

C#, Java

• Using Cartesian system, designed a recursive algorithm that finds a path such that mailman can reach every destination required for pickup & drop-off. Converts a JSON of obstructions to 2-dimensional bool array of viable paths.

THREE-IN-ONE MINI-GAME APPLICATION

July 2014

C, C#

• Developed an app on Visual Studio that includes 3 text-based mini-games: Up&Down, Soccer 333, and Ice-Cream!