ANDREW CHOI

SOFTWARE ENGINEER | FULL STACK IOS & ANDROID DEVELOPER

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QUALIFICATIONS

- Languages: C, C++, C#, Java, JavaScript, CoffeeScript, Swift, PHP, Python, Ruby, MATLAB, Bash.
- Environment & Libraries: iOS, OS X, Windows, Android, Linux, Unix, jQuery, AngularJS, Node.js, D3.
- Tools: Visual Studio, Eclipse, Xcode, Sublime Text, Atom, Git, MS SQL Studio, NPM, Bluemix, Watson APIs.
- Hardware: Integrated circuits, solenoids, transistors, multimeters, FPGA, Altera DE2.
- In all co-op work terms, received an **employer evaluation 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   May 2016 - Present
iOS Developer | Downtown Toronto   --

- Lead Virtual Reality developer on Unity for IBM's first ever Oculus Rift VR implementation in new applications.
- As a full-stack developer, took full ownership over developing IBM Guest Check-In iOS app, Node.js & Laravel Digital Innovation Lab application, and Watson Machine Learning-based NAO Robot application 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 prototype & PoCs (Proof of Concepts) under very tight time constraints. Let to demoing them to multiple IBM clients including Scotiabank and RBC.

IBM   January – April 2016
Android Developer | Downtown Toronto   Outstanding Evaluation*

- Lead developer for IBM's first ever Android Instant Apps (released at Google I/O 2016).
- 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 prototypes under very tight deadlines. Let to demos to clients of the company.

BLACKBERRY   May – August 2015
Service Tools Developer | Waterloo, ON   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.

EDUCATION

UNIVERSITY OF WATERLOO   September 2014 – April 2019
Bachelor of Applied Science: Computer Engineering Honours | 2B

- Maintained Excellent Academic Standing / Good Academic Standing while involved in rigorous and competitive soccer.
- Midnight Sun Solar Rayce Car Club: 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 academic standing upon entrance (**99% average**).

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 Web Application
- 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.

SENSORTAG LUGGAGE TRACKER   February 2016
Internet of Things Android Application
- 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
Financial & Banking Bluemix Application
- 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
Web Development & Design
- Constructed a website utilizing Bootstrap, Sublime Text, CSS, JavaScript, JQuery, Git, Node.js, and D3.js framework.

PARCEL DISTRIBUTION PROGRAM   November 2014
C# / Waterloo Programming Competition (WEC) | Nov. 2014
- 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# Application (both language versions)
- Developed an app on Visual Studio that includes 3 text-based mini-games: Up&Down, Soccer 333, and Ice-Cream!