# **JULIAN YONGMIN SONG**

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### **EDUCATION**

Sept 2014 - Present

## University of Toronto St. George Campus, Toronto, ON

- Bachelor of Science, specialist in Computer Science (focus in Artificial Intelligence) and major in Statistics. CGPA: 3.64/4.0
- Expected graduation May 2019
- Achieved the University of Toronto President's Entrance Scholarship 2014
- Achieved Trinity College Chancellor's Scholarship Ashbaugh 2015

### **SKILLS**

Programming: Fluent in Java, Python, HTML, C, SQL, CSS, JavaScript. Familiar with Xpath/XQuery,

Verilog, LaTex, R, C++. Beginner in Assembly Language

Technologies: Git, Subversion, Linux/Unix, Eclipse IDE, Android Studio, Dojo Toolkit, AngularJS, Node.js,

Spring framework, Maven, Selenium, IBM Watson, Bluemix, RTC, DB2

Electronics: Arduino Programming, PCB schematics design, soldering, breadboarding, Altera

Quartus & Modelsim

2<sup>nd</sup> Languages: Fluent in Korean. Elementary in Japanese

### WORK EXPERIENCE

## May 2016 - Aug 2017 Java and Web Software Developer Intern - IBM Cloud, IBM, Markham, ON

- Implemented new features and fixed defects for recent releases of IBM Hybrid Cloud Business Process Manager (BPM) software products using Java, HTML, CSS, JavaScript, XML, Dojo Toolkit, AngularJS, Spring framework and Node.js
- Participated in agile software development (Scrum) for Repository & Web UI Framework and Runtime/Engine teams.
- Increased the runtime speed of Process Engine by 20% and integrated a new auto-track suggestion tool using Dijkstra's algorithm by analyzing the total time taken in running a BPM process service and suggesting an alternative efficient path to clients.
- Refactored JDBC templates and implemented dynamic UI components and RESTful APIs.
- Developed BPM Automated Survey Analyzer using BPM software and IBM Watson APIs
   (AlchemyAPI, Natural Language Classifier, Tone Analyzer) as a team to automate customer
   support services and assist technical support engineers.
- Created, tested and optimized numerous Selenium automated test cases to improve the automated test package runtime by 60%.

## May 2015 - Aug 2015 Summer Software Developer and Researcher, iGEM Toronto, Toronto, ON

- Developed a web application ConsortiaFlux to compare genome-scale metabolic models of bacterial consortia to analyze the introduction of synthetic E. coli from the Athabasca river microbiome as a team using HTML, CSS, JavaScript and Biojava.
- Main Project: A Genetically Engineered Solution for Oil Sand Tailings.
- Researched on the biodegradation of the microbiome, Toluene found in Alberta's oil sand tailing ponds and its potential political and environmental risks.
- Nominated as the Best Applied Design during iGEM 2015 competition held in Boston, Massachusetts.

#### **PROJECTS**

### Aug 2017 - Present

## **Java Spring Content Management System Application**

- Currently developing a Java Spring Content Management System application.
- Technologies used: Java, Spring (Data, MVC, Hibernate), React for back-end, React, Webpack and Babel for front-end, Maven for build and mySQL for database.
- Source code can be found from https://github.com/ymsong01/Content-Management-System

### Oct 2016 - Mar 2017

## IBM CASCON 2016 Community Hackathon ReachUp Ultimate Application

- Achieved the 1st place with the proposed business solution and the developed software during the IBM CASCON (Centers for Advanced Studies) 2016 Community Hackathon.
- Collaborated and provided a business solution to resolve the challenges faced by the non-profit community, Reach-Up Ultimate association.
- Developed and maintained the Ultimate Scheduling Application using Node.js, IBM Cloudant, Bluemix, MDL and Vue.js as a team.

### Jun 2016

## MSFTHacks 2016 "Am I joking?" Django web app using Microsoft Azure ML API

- Implemented Django web application, "Am I Joking?" which detects whether user makes a TWSS joke using Microsoft Azure Machine Learning Studio and Bing Speech to Text API as a team during MSFTHacks 2016.
- Scraped the raw data from web in order to train it on Azure Machine Learning Studio

### EXTRA-CURRICULAR & VOLUNTEER EXPERIENCE

## May 2016 - Mar 2017 Future Blue Intern Web Team Developer, IBM, Markham, ON

- Developed IBM Intranet web applications to assist other interns.
- Managed and updated IBM intern website regularly and made the website responsive.

## Sept 2016 - Dec 2016 Future Blue Newsletter Team Lead, IBM, Markham, ON

- Organized and updated news for Future Blue intern community at IBM Canada.
- Participated in a weekly meeting with HR team to discuss various ways to encourage interns to participate IBM organized events actively.

## Sept 2015 – Apr 2016 DCS Student Ambassador, Department of Computer Science, Toronto, ON

Volunteered and provided general assistance to the University of Toronto DCS events and promotes the events as a DCS ambassador.

## Sept 2012 - Apr 2014 Career Preparation in Trades and Technology Program, VSB, Vancouver, BC

- Achieved 2 years education program in trades and technology sponsored by Vancouver School Board.
- Practiced Linux Ubuntu environment, soldering, PCB schematics design and Arduino.
- Worked as a computer technician at local companies in Vancouver.

## Dec 2011 - Mar 2014 Mathematics Student Instructor, Mathematics Tutoring, Vancouver, BC

- Advised grade 8-10 students in developing Mathematical skills.
- Assisted students with their Mathematics homework and upcoming tests.

## **HONOURS & CERTIFICATES**

| IBM Mentorship Program Certificate                           |
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| University of Toronto Dean's List Scholar 2016               |
| International Baccalaureate (IB) Diploma Program             |
| Distinction Certificate, Canadian Fermat Mathematics Contest |
| Bronze Certificate, Canadian Hypathia Mathematics Contest    |
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