




# BOBBY NGUYEN

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## TECHNICAL SKILLS

### Languages

C / C# / C++	Scala
Java	SQL
JavaScript	HTML / CSS

### Technologies / Frameworks

Node.js	Selenium
Spark	Appium
Kafka	MS SQL

### Tools

Git	Jenkins
Splunk	Hadoop
Jira	MATLAB

## EDUCATION

### Mechatronics Engineering

University of Waterloo | Class of 2021  
Minor in Management Sciences

### Relevant Courses

Algorithms & Data Structures  
Real-Time Operating Systems  
Digital Logic & Microprocessors  
Sensors & Instrumentation

## INTERESTS



Fashion



Cycling



3D Printing



Home Automation

## EXPERIENCE

### Watson Software Developer | IBM Canada Limited

May. 2019 - Aug. 2019

- Remodelled IBM's Incentive Compensation Management (ICM) calculation engine to leverage big-data framework Spark and cluster computing; resulted in significant speed-boosts of up to 75%
- Investigated and refactored the order of operations logic in the calculation engine, increasing precision accuracy to 10 decimal places
- Developed a Jenkins pipeline that compares results output by the Spark calculation engine and old engine to auto-detect numerical inconsistencies and data related bugs

### Consultant Software Developer | Brock Solutions

Sept. 2018 - Dec. 2018

- Co-architected and developed from back to front-end a C# web-based IoT manufacturing app used in 27 plants, that processes sensor data to automate factory production; utilized Kepware and MS SQL technologies
- Developed security feature that queries production data-streams for abnormal trends to prevent machine failures, yielding \$50,000 in repairs
- Counsellor with clients to solve software escalations and plan upcoming enhancements in order to manage future sprints accordingly

### Software Developer in Test | Clearbridge Mobile

Jan. 2018 - Apr. 2018

- Designed and developed a pipeline in Java that deploys the latest iOS and Android builds, executes the regression test suites and outputs the results on a set time schedule using Selenium, Appium, Maven, cron & shell scripts
- Automated test suites for NBC and Rogers Inc. freeing 70% of required time for sanity, smoke, and regression tests

## PROJECTS

### Automated Beer-Pong Robot

- Created with the combination of motors, gears, sensors, and C++, the Beer-Pong Bot autonomously aims and align to fire ping-pong balls into the opponent's cup with 75% success

### IBM Watson SleepDetector

- Developed a Node.js application using IBM's Watson Visual Recognition API to identify when a driver has fallen asleep at the wheel in order to awake and remind them to rest