

Tom Zhu

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SKILLS

Languages: Java, C++, Python

Tools & Technologies: Git/Mercurial, Bash, Maven, Spring, gRPC, IBM Watson, OpenCV, Twilio

EXPERIENCE

Genesys

May 2019 - Aug 2019

Software Development Intern

Markham

- Built a **Java** mock server mimicking Google Text To Speech servers with **Maven** and **gRPC**, reducing the cost of automation testing by over \$6000 USD per month for 20 hours of load tests per week
- Constructed an elementary framework in **Java** from scratch based on a Genesys proprietary protocol to illustrate the basic infrastructure and design to a client
- Enhanced **C++** source code in Jenkins production pipeline by adding third party testing library support, replacing deprecated dependencies and fixing memory leaks in an **Agile** development environment
- Resolved 10+ issues related to multiple weekly **Python** automation scripts

PROJECTS

WATSecure

- Worked in a team of 4 at Hack the North to create an **IBM Watson** object recognition AI app intended to send text messages of who is captured on camera upon activation of a doorbell or motion sensor
- Integrated **OpenCV** webcam compatibility to send live image captures to IBM cloud
- Incorporated **Twilio API** to send text messages from image recognition algorithm's JSON output

Waterloo Course Scheduler and Notifier

- Designed and implemented a RESTful API backend using **Java**, **Maven** and **Spring Boot** for parsing and saving schedule JSONs to a login system
- Deployed backend with **AWS Beanstalk**

AWARDS & ACHIEVEMENTS

Canadian Computing Competition

Feb 2018

School Champion Medalist, Certificate of Distinction

- Solved challenging programming problems with advanced algorithms and data structures in Java
- Placed in the **94th percentile** out of over 1,000 contestants world-wide

Euclid Mathematics Competition

Apr 2018

School Champion Medalist, Certificate of Distinction

- Placed in the **98th percentile** out of over 18,000 contestants world-wide

EDUCATION

University of Waterloo

Candidate for Honours Bachelor in Computer Science (2A)

Sept 2018 - Present
83% Average, 3.62 GPA