RILEY ZHOU

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SKILLS

Languages: C++, C, Java, Typescript, C#, Scala, HTML, CSS
Frameworks & Technologies: KoaJS, ExpressJS, PostgreSQL, OpenNLP, Spring Boot, .NET, Office Interop, React
Tools: Git, JIRA, Crucible, Postman, Docker, OpenShift, Pivotal Cloud Foundry

EMPLOYMENT HISTORY

Developer at **RBC**, *Toronto* Sep 2019 – Present
Typescript, shell script, Dialogflow, Docker, OpenShift, Pivotal Cloud Foundry

- Created security checking module for an internal API testing project, which catches API's authentication vulnerability
- Developed a feature that supports handling multiple purposes in a Banking/Finance chatbot app using microservice architecture and **Dialogflow**
- Implemented a generic template for easily managing conversation APIs in future development of the chatbot app
- Saved **80%** of the setup time for future onboarding process through creating database and framework containers

Software Developer at **QRA Corp**, *Halifax* Jan 2019 – Apr 2019
.NET, Spring Boot, Natural Language Processing, C#, Java, Visual Studio

- Maintained and developed an engineering **requirement analysis tool** as a Microsoft Office Add-in
- Reduced false positives in noun phrase extraction by **85%** through optimizing algorithm and implementing heuristics
- Implemented incomplete sentences and passive voice detection using **OpenNLP** subtasks
- Created equation parser that renders content in equation editor to linear format with Regex and MathML
- Developed new user interface of Office Add-in task panes in **C#**

Undergraduate Research Assistant at **Research Institute for Aging**, *Waterloo* Jun 2018 – Nov 2018
Soli, Myo, OpenFrameworks, C++, AppleScript, XCode

- Explored **machine learning** by maintaining and expanding a **gesture recognition** project
- Improved recognition accuracy of Soli radar sensor by **50%** through optimizing the **Random Forest algorithm**
- Obtained better resolutions by adding a wearable sensor to the radar sensor and building communication system between them using **Open Sound Control** (OSC)
- Collected and analyzed data from wearable sensor in **C++** using a **Decision Tree algorithm**

PROJECTS

Autonomous RC Car Nov 2017
Arduino, C, C++ Java, Android Studio

- Implemented autonomous driving mode using **Arduino** board programmed in **C/C++**
- Created a remote-control **Android** app using **Java** to manually change speed and direction of the car
- Incorporated **object avoidance** feature in both manual control and self-driving mode using **ultrasonic sensors**
- Developed in team of three using **GIT** for version control

VOLUNTEER EXPERIENCE

Technology Helper at **Luther Village on the Park**, *Waterloo* Jun 2018 – Present

- Helping senior residents diagnose and solve software issues
- Assisting seniors in using technical products, and obtaining basic internet and computer skills

EDUCATION

Bachelor of Software Engineering, University of Waterloo*, Waterloo* Sep 2017 – Present
Anticipated Graduation Date: June 2022
Awards: President's Scholarship with Distinction, President's Research Award, Dean's Honour List