

# RYUN KIM

3A Mechatronics Engineering | University of Waterloo

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**Languages:** JavaScript/TypeScript, Python, C/C++, Java, MATLAB

**Tools:** React, React Native, Node.js, Express, MongoDB, Git, Bootstrap, Postman, VS Code, Jira

## WORK EXPERIENCE

**Frontend Software Engineer** | Mensante Corporation – FeelingBetterNow® (Part-time) Mar 2021 – Current

- Customized a React Chart.js widget for displaying a user's mental health assessment history by parsing and filtering data to display in tooltips and labels; adding resize and pan functionalities; and adding navigation click handler events
- Implemented and integrated push notifications services for iOS and Android using React Native and Expo

**Full Stack Web Application Developer** | Audioworks Technologies Jan 2021 – Current

- Developed and integrated REST APIs for performing CRUD operations on Reddit-style threads among other social features and on binary data in Azure Blob storage using Node.js, Express, and MongoDB, hosted on Azure Cosmos DB
- Developed UI for various views in a music app based on designs in Figma using React Native
- Developed the company's staging site ([app.audioworks.io](https://app.audioworks.io)) as an Expo web build and deployed it to an Nginx server using Docker and Kubernetes

**Full Stack Developer** | SS&C Technologies May – Aug 2020

- Developed automated test scripts in Java using the BDD framework Cucumber and Gherkin for various client facing pages on a brokerage management software called Sub-accounting UI (SUI)
- Researched and integrated SonarQube analysis into a build pipeline to detect and resolve vulnerabilities and hundreds of Java code smells in the SUI code base hosted on GitLab
- Collaborated within a scrum team to define, develop, and estimate user stories and epics in two-week sprint cycles

**Software Engineer in Test** | Maplesoft Sep – Dec 2019

- Developed comprehensive unit and visual integration tests using Puppeteer and the JS testing framework Jest to debug custom web components built in Stencil used in the company's modelling and simulation software MapleSim
- Prevented bugs from entering production by running the test suite using custom npm run scripts, undergoing review cycles for the test files and submitting them on Perforce (VCS)

## PROJECTS

**Masked Captions** | Hack the North 2020+ + Jan 2021

- Prototyped a mobile app that has accurate real time speech-to-text and translating capabilities on a 3-D printed phone mount for communicating in-person more easily and safely during the COVID-19 pandemic using Google Cloud APIs

**Anti-Bumper Car** | Hack the 6ix – Placed 2<sup>nd</sup> Overall Aug 2020

- Developed an iOS application to detect environment and actors around a self-driving vehicle and send the appropriate driving command to avoid collision using Swift, Apple's ARKit, Autocode, and Arduino

**YelpCamp** | Udemy Oct – Dec 2019

- Developed a RESTful web application for users to review campsites with custom user authentication and comment features using Bootstrap, Node.js, Express, MongoDB Atlas, Git, a cloud-based IDE, and Heroku for deployment

## EDUCATION

**Candidate for Bachelor of Applied Science**

Mechatronics Engineering, University of Waterloo, 2023

- **Relevant Courses:** Computer Structures & Real-Time Systems, Data Structures & Algorithms
- **Honours:** Term Dean's Honours List (1A, 1B, 2B)

## INTERESTS

- Electrical sub-team member on Waterlooop (2 terms)
- A cappella singer and executive in "The Water Boys" and "The Unaccompanied Minors" (5 terms total)
- Piano and acoustic guitar player (10 years)
- Musical theatre performer (4 years)