# What I did this Summer?

I started of this April enrolling in a COVID-19 Hackathon with a team of 4 where I got to work on a COVID-19 companion app idea. After we got knocked out, I planned on taking the project on my own, which drove me to learn more about React Native. While watching tutorials on YouTube, I realised how powerful React Native was. I was always interested with Raspberry Pi and I got a amazing idea to work on a gardening project. At this point I thought I’d take more professional courses. So I enrolled in the Ultimate React Native Course with Mosh where it was teaching me how to make an app like Kijiji. After doing the 1st part of the course I thought I need to learn about the React.js to clear up a bit on the basics. But in that moment I got a opportunity to take a course at Dalhousie that mimicked a workplace like environment. It was a 2 months course and the last 4 weeks, our team build a TA Management System for the Dal FCS. Right now, I am learning React.js with Mosh to build a shopping cart website. After that I’ll finish up the React Native course. Along side that I’ll be working on the water me and the Covidibuddy and a cousin’s remote barber app idea.

Participated in a COVID-19 Hackathon

Took online courses to Learn React and React Native

Started two personal projects all of which includes mobile app development

Bought a Raspberry Pi for one of the projects

Worked in a mock company to build a TA Management System

# Water Me

Reason behind:

I was told to water the plants while my aunt was off in vacation. I forgot to water them regularly. Eventually some of her indoor plants died. So I thought wouldn’t it be a nice idea if my phone reminded me if the plants needed water. If they got too much or too little.

The idea:

An app that lets you know if your plant needs water through push notification. The interface includes the current state the water moisture level. However to make it more fun, the plant tells.

The implementation:

Current state:

I bought a Raspberry Pi Zero and Soil Moisture Sensor and wrote a test program to check if the soil

# DalTAMS

## Work Term

This summer I worked as an intern, at a mock startup company called [**Everybyte Digital Products | Dalhousie University Faculty of Computer Science**](https://www.linkedin.com/company/everybyte-digital-products-faculty-of-computer-science-dalhousie-university/). The company's objective was to provide software solution to post-pandemic workplaces.  
  
We interviewed a handful of companies including the [**CBC**](https://www.linkedin.com/company/cbc/), [**SimplyCast**](https://www.linkedin.com/company/simplycast/), [**Develop Nova Scotia**](https://www.linkedin.com/company/develop-nova-scotia/)and [**Dalhousie Faculty of Computer Science**](https://www.linkedin.com/in/ACoAACoNPowBrg_ylgax7BzLc5kZmozmFLdpnjY), listened to their experience both before and after the pandemic, problems they faced and things they valued. Based on the interviews, our CEO gave us to work on a TA Management System.  
  
We named our product DalTAMS, and the idea was to get rid of the email system that was currently used to hire and manage TAs at Dalhousie. I was the team lead, [**Howard Le**](https://www.linkedin.com/in/ACoAAB0ISeQBD2U4HoT6D1O8IAA7frFzI4ZaIEk) was responsible for the user requirement, [**Surya Kashyap**](https://www.linkedin.com/in/ACoAAC1eOLgBaBTmPAhAFvBQPinFVLjeDRqRI2o), [**Nhat Nguyen**](https://www.linkedin.com/in/ACoAACvPry4BJZ-3JKzWwPqagHkVjxPwKK67XUY) and Zhaohe He were the technical experts. It was a four weeks project and the objective was to develop a minimum viable product.  
  
After the end of the four weeks our product received the highest investment from the fellow members. This was a huge achievement, something that wouldn't have been possible without the hard work from each of our members and the support we got from Andrew Cochran, [**Anish Tuli**](https://www.linkedin.com/in/ACoAABQPh0oBtAoCDH-mN6ZNB30gOlPF8kTHVpQ) and Sneha Kotha.  
  
Link to the website: [**https://bit.ly/3kPSoPp**](https://bit.ly/3kPSoPp)  
Link to Github: [**https://bit.ly/30X0zBw**](https://bit.ly/30X0zBw)

## Experience

The last four weeks was an epic roller coaster ride. I was fortunate enough to lead an amazing team of five to build a TA Management System for the Dalhousie Faculty of Computer Science. From interviewing users and brainstorming on their values and pain points, to using powerful frameworks like Bootstrap along side PHP and MySQL and finally ending the ride with some testing and documentation. This was my first time following all the steps in the software development cycle. I realized how effective a team can be when you can build ownership in them and get the right person to do the right task. Our product later got the highest investment among the four products the company build this term.

## Project Overview

DALTAMS is a Teaching Assistant Management System that simplifies the process of

recruiting and managing TAs. This web application can help students save time to apply for a TA

position and managing their application; simplify the process for professor posting a job,

tracking and evaluating TA; helping TA to managing their time schedule and submit the Hours

of submission as well as seeing their performance. DALTAMS provides users with the user

friendly interface, easy to understand title, and straightforward interaction. The focus for each

type of user is the convenience, and timesaving. Another type of user that is integrated with our

website is the Office side, which allows the human resource department to view and approve the

hours of submission.

## My Role

I worked as the product

# Covidibuddy

Your lobster buddy that gives you daily challenges and updates on COVID-19

Overview:

This was a project that I and three other members undertook for the ShiftKey Labs COVID-19 Virtual Hackathon (link). The idea was to create a mobile app that rewards the user for honouring COVID-19 protocols and keeps user updated with latest COVID-19 news local to Nova Scotia. The user can share these achievements online through social media and inspire others.

How it works:

The reward mechanism works based on the completion of tasks/challenges generated by the AI for each individual user. Challenges include things like washing their hands a certain number of times a day, doing workout at home or completing a trivia related to COVID-19.

UI ideas:

A Non-Player Character (NPC) like Lobster (because it is a Nova Scotia thing) will be used to make it more fun and interactive. The NPC will inform the user things like new updates on COVID-19, what their next challenge is and how many lives they individually have saved following social distancing. We will also share good news everyday related to COVID-19 with the user.

Addressing Challenges (link) from Hackathon:

Challenge #11: The reward mechanism and sharing achievements will make personal disinfecting more effective and organised.

Challenge #12: The reward mechanism and sharing achievements will help fight loneliness and keep the user engaged. In addition, the app can share some good news related to COVID-19 and share with the user via push notification on their phones or as a news feed on the website. Coinciding with the challenges, the reward mechanism can suggest activities to help users stay productive and have fun.

How we planned on addressing it:

We worked on the lean canvas to get a in depth idea on the marketing side.

We planned on using react native for front end, Node js and Mongo DB for back end and some AI tools for personalised challenge generation. I was in charge of creating the front-end along with one other person.

We got knocked out in the first round, but I planned on continuing with the project personally. After which I started taking courses to learn React Native.

Link to Hackathon: <https://www.facebook.com/shiftkeylabs/photos/a.1158851997536732/2846140382141210/>

Challenges:

<https://docs.google.com/forms/d/e/1FAIpQLSeB3EDs1xQCXb2a8ymCAuAr2jDSJ9mdrrasnBWf_z4zUnOi7Q/viewform?fbclid=IwAR10frdMBPid7ODPQR3-GQJnXJ8rArfo4txPyJpvricKGV5knA0h8rfmcMs>

## Maze Search

## Search and Rescue

Small Projects:

Line Follow:

A program that allows the Thymio robot to

Block Avoidance

Large Projects:

Curling:

Search and Rescue:

# Others

# Remote Barber