# JARVIS WU Software Engineering

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#### **SKILLS PROFILE**

- ✓ Well-versed in iOS/watchOS application development through previous work experience and self-learning.
- ✓ Languages I use: Swift, JavaScript (ES6), HTML/CSS, C, C++, Python; I am familiar with Java, Kotlin, Objective-C, and SQL.
- ✓ Some tools I use: Xcode, VS, Git, Microsoft TFS, HockeyApp, Postman, Trello, Metabase, Bugsnag, InVision, Zeplin.
- ✓ Some libraries/frameworks I use: Firebase, BootStrap, Chart.is, Ionic, Alamofire, CoreML, fastText, YOLO, Dialogflow, etc.
- ✓ In my free time, I am learning: web development (React JS, Vue.js), and computer vison (ARKit, Vision, OpenCV).

## **WORK EXPERIENCE**

## **TD Lab** Software Developer Kitchener, ON, Canada • Sept - Present

- ✓ Added real-time face tracking feature to an iOS photo booth app with 40x less GPU-induced energy impact.
- ✓ Worked on an open-source ML project using Darknet YOLO (from Turi Create) to convert hand-drawn sketches to real apps.
- ✓ Created a chat bot that uses Dialogflow to answer questions about banking product, and did Slack/Messenger integration.

## LCBO | Next Lab Mobile Developer Kitchener, ON, Canada • Jan - Apr 2018

- ✓ Implemented an Inter-Store Transfer MVP backed by Firebase Auth, Realtime Database, and LCBO General APIs.
- ✓ Worked on admin/client apps of a Digital ID project that verifies customer photos using encrypted QR code for fast check-in.
- ✓ Created an app for submitting digitized tasting notes to PostgreSQL and feed an Azure blob storage with product images.
- ✓ Developed an app that facilitates Challenge & Refusal procedures and provides data to Metabase for dashboard visualization.
- Designed a watchOS prototype that updates in-store statistics for staff in real-time notifications via WatchConnectivity.
- ✓ Enhanced the security level and/or user experience of multiple projects using JSON Web Token (JWT), Auth0, Instabug, etc.

#### Rave Inc iOS Developer Kitchener, ON, Canada • May - Aug 2017

- ✓ Collaborated on a new version that introduces RaveDJ (first Al-powered DJ in the world) and Netflix playback to the app.
- ✓ Built the frontend UI and backend logics of the login/sign-up, Spotlight, and Continue Watching sections for Rave Netflix.
- Customized a side menu that enables Netflix user profile switching, and the navigation through hierarchical video genres.

#### SIDE PROJECTS

## Tackle A mobile app for easier personal task management April 2018 - Present

- ✓ Designed the wireframe mockup and interaction flows in InVision; applied Auto Layout to create cross-platform adaptive UI.
- ✓ Used Firebase to power some important features such as federated authentication, in-app chatting, and file storage.
- ✓ Improved UI by using the CocoaPod *folding-cell* to replace default table view and *Chameleon* for color/theme management.
- ✓ Working on incorporating Google Maps and Calendar SDKs to include location and time reminders for a task or an event.

# WhatsThat A real-time object detector + text/QR/barcodes scanner Oct - Dec 2017

- ✓ Used the CoreML model *ResNet50* to classify dominant objects out of 1000 ImageNet categories and output the confidence.
- ✓ Built a feature on top of Vision framework that reads text/QR/barcodes and displayed parsed information in a modal view.
- ✓ Planning to add a "face recognizer" functionality by training the ML model with TensorFlow/Keras using custom datasets.

#### **EDUCATION** •

### **University of Waterloo** Waterloo, ON, Canada • Sept 2016 - Present

✓ Candidate for Bachelor of Software Engineering (BSE). Currently in 2B and expected to graduate by Spring, 2021.