

Hung-Chun Tsai

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SUMMARY

Meticulous, energetic, and charismatic software engineer with 7+ years programming experience. 2 years professional iOS experience developing robust code for high-volume businesses. I have a keen eye for design and appreciate the importance of a clean and beautiful user-interface that engages the user.

Work Experience

2021 - Present **ScotiaBank Digital Factory, iOS Engineer**

I was contracted to work as a iOS engineer to crafting a brand new direct investing experience for clients with a completely redesigned Scotia iTRADE mobile app. iTRADE mobile app also the first enterprise application that ScotiaBank adopt with the SwiftUI framework. Extensively support accessibility feature on iTRADE including dynamic font size and VoiceOver control. [[iTRADE App on AppStore](#)]

- Major reusable UI components including a segmented control components and checkbox group buttons.
- Partner closely with product management, QA and your development team members to continuously improve our app
- Improved the product quality through code reviews, writing unit tests, and collaborating with QA on implementing automation testing.
- Implement third party library for displaying the chart within the native SwiftUI app on iOS 15.
- Overhauled accessibility support to meet WCAG 2.1 level AA standards including dynamic font size and VoiceOver control.
- Adopting snapshot testing during development process to keep UI consistent and maintainable.

SKILLS & QUALIFICATIONS

Programming Languages: Swift (3 year), C# (4 years), HTML & JavaScript (1 year)

Methodologies: Object Oriented Programming, Agile, Test Driven Development, Third-Party API Integration

Project Management Tools: Confluence, JIRA, Bitbucket, Git

Physics & Math principles: Spray simulation, Mesh generation, Camera calibration.

Development Tools: Xcode, Accessibility Inspector, Unity3D, Visual Studio, Visual Studio Code

Other PROJECTS & HONORS

2021 **"Atomic Habit" - Lead Programmer (Team of 3)**

Habit trackers combine with social media (iOS, SwiftUI 2)

- Implemented Firebase services for Authentication & Third-party login
- Onboarding Screen
- Implemented Combine framework
- MVVM design pattern
- Implemented NoSQL Realtime Database using Firestore
- Designed the application's UI and UX
- Application presentation - [Demo Link](#)

"Quoter" - Personal Project

More than 10 thousand quotation which motivate user every day. (iOS, SwiftUI 2)

- MVVM design pattern
- Export scene/view to the pictures
- Implemented CoreData
- Json decode
- AppStore Link - [Quoter](#)

2018 **"Red Signal" - C# Programmer and VR Technical Director (Team of 7)**

Traffic accident experience interactive device in VR (Unity)

- Simulation of car accident with VR headset
- Silver Award for 2018 VISION GET WILD AWARD
- Red Dot Award: Communication Design "Winner"

- "Red Signal" – [Behance Link](#)

2017 **"VR Pottery" – Technical and Program Director Assistant (Team of 4)**

Pottery art simulator in VR with hand gesture capture (Unity)

- Using mesh manipulation to simulate the pottery art
- Combine the hand gesture capture by Leap Motion
- VR Pottery – [Demo Link](#)

2016 **"VR Spray" & "3Draw" – Lead C# Programmer and Technical Director (Team of 4)**

Graffiti simulator and 3D Model drawing system in VR and AR environment (Unity)

- SIGGRAPH Asia 2016 Exhibition
- Combine with 3D printer
- VR Spray – [Demo Link](#), 3Draw – [Demo Link](#)

Education

Mobile Solution Development, Conestoga College, Waterloo (2020-2021)

Master of Science

Computer and Communication Engineering, Ming Chuan University (2018-2019)

- Research Assistant of "Tango 360: Mobile VR Fusion with RGB-D and 360 Camera" project. (2018)
- Teacher Assistants for Virtual Reality curricular for one semester (2018)
- Research Assistant of "VR Pottery and Marbling Art Painting Simulation System" project. (2018-2019)