

ARIEL TYSON

Vancouver, BC | 604-722-9184 | ariel30190@hotmail.com | [linkedin.com/in/arieltyson](https://www.linkedin.com/in/arieltyson) | github.com/arieltyson | www.arieljtyson.com

EDUCATION

Simon Fraser University, Burnaby, BC

Expected Graduation Date: Dec 2025

Bachelor of Science (BS / BSc), Computer Science

- **Relevant Coursework:** System Design, Data Structures & Algorithms, Databases, Operating Systems
- **Extracurriculars:** Captain of SFU Intramural Soccer Team, Students of Caribbean & African Ancestry (SOCA), ColorStack Chapter Founder

EXPERIENCE

Software Engineer Intern - Workday

May 2024 – Dec 2024

- Delivered functionalities in **Objective-C & Swift** to augment **developer productivity tools & frameworks** for the **Workday iOS** application
- Architected **API designs** to allow access to protected APIs via **tokenized authentication** for **improved client-server protocol security**
- **Refactored** Swift classes to adhere to **SOLID** principles & **object-oriented** design to support **dependency injection & factory pattern**
- Leveraged **XCTest** to **create unit tests in XCode** following **Test-Driven Development** to address resiliency issues in **macOS and iPadOS**
- Enhanced app usability through Apple's accessibility inspector & **UIKit Accessibility API** to ensure compliance with **WCAG** standards.
- Drove the implementation of **Signposts & Combine** to track navigation within the iOS app & **increase observability of events by 75%**
- Partnered with designers to establish a **Loading Dots UIComponent** using **SwiftUI** which is incorporated within 100% of loading views
- Pioneered the investigation of automated **Push Notifications** on iOS to align Workday's accordance with Apple Push Notification Service
- Prototyped the usage of Apple's **TipKit Framework** within the Workday iOS app for **enhanced feature discovery** and customer support

Teaching Assistant - Microsoft TEALS

Jan 2024 – Aug 2024

- Conducted classes overseeing a **full cycle education of Python** from syntax, to debugging, to functional application building and **object-oriented design skills** with personalised teaching and consistent feedback
- Built a platform for 9th grade students of BC to enhance **analytical, debugging, critical thinking, and problem-solving skills** and **work effectively, both in teams & independently**, through structured tasks

Software Developer Intern - RAD Torque Systems

Sep 2023 – Apr 2024

- **Optimized execution speeds by 20%** by porting a full stack **enterprise application** in Visual Basic .NET to **C# .NET** using **.NET MAUI**
- Developed a **search feature** in .NET MAUI which consumed a **RESTful API** to allow real-time, multi-platform access to tool information
- Automated workflows by **building a CI/CD pipeline with Jenkins & Docker**, reducing deployment cycles **from 2 hours to 10 minutes**
- Utilized Adaptive Cards to display **real-time notifications** of Pipeline results for approval via **incoming Microsoft Teams Webhooks**
- Hosted a **web server** built using **Python Flask module** to listen to **HTTP requests** at stages of a custom designed **DevOps flow**
- Displayed fluency in using **command-line utilities and shell scripting** with **Bash** to configure and administer **Linux/Unix** systems

PROJECTS

Tourism Beats | [AppStore](#) | **iOS / XCode / Swift**

Jun 2024 – Present

- Administered **APIs, tools & frameworks** such as **WeatherKit, MapKit, TipKit, AVKit & MusicKit** to create an interactive **SwiftUI** interface
- Executed the **MVVM** design pattern to create **wrapper classes** providing **UIKit** fallbacks to blend seamlessly with unsupported **APIs**
- Integrated the **Group Activities** framework into the app to support synchronized UI interaction and shared experiences via **Share Play**

App Intents Navigator | [AppStore](#) | **MacOS / WatchOS / App Intents**

Oct 2024 – Present

- Composed animated interfaces to create an exciting experience for users to explore places of interest on **iOS, MacOS & WatchOS**
- Interfaced with the **Codable** protocol to handle external data representation in **JSON** format to populate views with custom properties
- Improved the discoverability of the app using **WidgetKit & Shortcuts** to deeply integrate the app experience across the user's system

AR Health | [AppStore](#) | **VisionOS / SwiftUI / AR/VR**

Nov 2024 – Present

- Produced an immersive **Augmented Reality (AR)** Wellness Companion app that promotes healthy living using Apple's **HealthKit**
- Employed **SiriKit, Messages & WebKit** for interactivity, web-based content & enhanced action capabilities powered by **Apple Intelligence**
- Instituted **3D spacial interactions** by leveraging **RealityKit, ARKit**, & the **VisionOS SDK** to overlay prompts in the user's environment

TECHNICAL SKILLS

Programming Languages: C#, Python, Java, C, C++, JavaScript, SQL, Objective-C, Swift

Technologies: Git, Bash, PowerShell, HTML, CSS, React.js, React Native, Azure, MSSQL Server, ASP.NET Core, .NET MAUI, Docker, Jenkins

Transferable Skills: Time Management, Verbal & Written Communication, Multi-Discipline Team Collaboration, Product Reviews