

## Experience

### Apple | Senior Research Engineer (AI/ML) 2019 - Present

#### Swift Charts

I helped create the Swift Charts developer framework, a declarative framework for authoring beautiful visualizations. I designed and implemented APIs and led the design effort for defaults in the framework. Swift Charts empowers both internal and external developers to add visual-data experiences to their applications. It's used in the Apple Health, Weather, and Fitness apps amongst many others.

<https://developer.apple.com/documentation/charts>

#### WWDC

I taught people how to use Swift Charts. I was heavily involved in all Swift Charts related WWDC 2022 developer talks, including one I co-presented with a colleague on how to design effective charts.

<https://developer.apple.com/videos/play/wwdc2022/110340>.

#### Human Interface Guidelines for Charts

I led the creation of Human Interface Guidelines for Charts, Apple's developer facing design guidelines that describes if, when, and how you should use charts in applications.

<https://developer.apple.com/design/human-interface-guidelines/charting-data>

<https://developer.apple.com/design/human-interface-guidelines/charts>

#### Interactive Article for the Apple Women's Health Study

I created the visualization platform for an interactive data article for the Apple Women's Health Study. We created all animated visuals from scratch with Svelte.

<https://awhs-updates.hsph.harvard.edu/cycle-length-variability/>

#### Data Exploration for AI Evaluation

Recently, I've been designing and implementing data exploration tools for the Apple Intelligence projects. I built a virtualized data table with Svelte and Mosaic for high-performance browsing of arbitrary tabular data.

## Education

### University of Washington 2015 - 2019

B.S + M.S. Computer Science & Engineering

#### Select Publications

*Dziban: Balancing Agency & Automation in Visualization Design via Anchored Recommendations*  
at ACM CHI 2020

## Skills

#### Languages

Typescript / Javascript  
Python  
Swift  
SQL  
HTML  
CSS

#### UI Frameworks

Svelte  
React  
D3  
SwiftUI

#### Design Tools

Sketch / Figma