

Experience

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

Swift Charts

I was a core contributor in the creation of the Swift Charts developer framework, a declarative framework for authoring visualizations for Apple's devices. 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 among many other first and third party applications.

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

WWDC

To help people learn how to use Swift Charts, a colleague and I wrote and presented a WWDC 2022 talk on how to design effective charts. I was also heavily involved in the creation of 3 other chart-related talks that year.

<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 describe 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 co-designed and developed an interactive data article for the Apple Women's Health Study with the goal of providing an accessible way for participants to learn more about the study's findings. I created the visualization platform to support bespoke animated visuals. The article was shared with every participant in the Apple Women's Health Study through the Apple Research App.

<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

HTML

CSS

Swift

Python

SQL

UI Frameworks

Svelte

React

D3

SwiftUI

Design Tools

Sketch / Figma