Halden Lin

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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 Weather, Fitness, and Settings apps among many other first and third party applications.
https://developer.apple.com/documentation/charts

Charts @ WWDC 2022
To help people learn how to use Swift Charts, a colleague and I wrote and presented a talk on how to design effective charts at Apple's World Wide Developer Conference (WWDC). 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 the 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, aiming to help participants learn more about the study's findings. I created a visualization platform to support the article's 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 Apple Intelligence projects. I built a virtualized data table with Svelte and Mosaic for high-performance browsing of arbitrarily large 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