

OVERVIEW

Software developer, UI designer, published technical author, public speaker with ~20 years' experience. Work has been cited, reviewed, and favorably mentioned by a variety of print and web publishers, including those in the scientific community. Focused on the design and development of applications for macOS and iOS. Building Cocoa applications since the initial release of Mac OS X 10.0.

CAREER HISTORY

National Institutes of Health, NIAID – Bethesda, MD

Senior Software Developer (Remote)

Jun, 2011 – Present

- Report to Senior Investigator of Immunotechnology Section at Vaccine Research Center
- Continue to support and improve SPICE 5 while designing and building next version
- Released SPICE 6 with many new features, faster computation, and capability of handling vastly larger data sets by judicious use of "dropping to C" when Cocoa frameworks were non-performant
- Overhauled Pestle v1 (Sr. Investigator's Carbon version of app for manipulating, merging, and performing functions on plaintext tables to import data from FlowJo to SPICE) with simpler UX and released as v2, avoiding impending 32-bit application death of vital tool
- Built server-side registration, usage tracking component for SPICE 6 and Pestle 2
- Wrote extensive user manuals for both applications
- Coauthored scientific paper on the use of SPICE in research, since cited over 400 times by researchers worldwide

Senior Scientific System Analyst / Senior Software Developer

April, 2007 – May, 2011

- Reported to head of Bioinformatics and Computational Biosciences Branch (BCBB)
- Overhauled SPICE 4 (a Carbon version of a Mac OS X bioinformatics data mining and visualization application for the Vaccine Research Center) as an Objective-C / Cocoa application released as SPICE 5
- Wrote extensive user manual for SPICE
- Built server-side registration, usage tracking component for SPICE
- Supported teams of two internal projects (FERMS and PaVE) as user experience / user interface designer
- Mentored High School intern aspiring to become a developer
- Earned NIAID CIO award in 2008 for SPICE, and in 2009 for FERMS and PaVE
- Gave numerous talks and presentations on new technologies relevant to BCBB developers, and product planning and design processes

Peachpit Press (Pearson Education) – Berkeley, CA

Author (Remote)

Oct, 2010 – Aug, 2011

- Wrote *Mastering Xcode 4: Develop and Design*, an intermediate-level book about version 4 of Apple's IDE
- Drafted and submitted proposal for outline, page count, and timetables
- Worked with editing and design team to meet established goals
- Released book to excellent reviews (4.0-4.5 / 5 stars on Amazon, Apple Books, and more)
- Accepted several speaking engagements to promote the book by discussing its topic at user groups, conferences, and on a popular podcast
- Later contributed to updating the work for a second edition released in 2013

TECHNOLOGIES

macOS / Mac OS X • iOS
• Xcode • Objective-C • Swift • Cocoa

PUBLICATIONS

- Kelly, M., Nozzi, J.
Mastering Xcode: Develop and Design, 2nd Ed. (2013), Berkley, CA: Peachpit Press. Print.
- Nozzi, J. *Mastering Xcode 4: Develop and Design*. (2011), Berkley, CA: Peachpit Press. Print.
- Roederer, M., Nozzi, J., Nason, M.: *SPICE: Exploration and Analysis of Post-cytometric Complex Multivariate Datasets*. (2011), *Cytometry Part A* 79A. 2: 167-74. Print.

ENGAGEMENTS

- Jun 29, 2017: *The Hackintosh; CocoaHeads Group* (Raleigh, NC)
- Dec 01, 2012: *Xcode 4; CocoaConf* (Raleigh, NC)
- Nov 28, 2011: *Xcode 4, Part 2/2; iDeveloper Live Podcast, Episode 35*
- Nov 21, 2011: *Xcode 4, Part 1/2; iDeveloper Live Podcast, Episode 34*
- Nov 02, 2011: *Xcode 4; CocoaHeads Group* (Washington, DC)

CAREER HISTORY CONTINUED

Bartas Technologies

Sole Proprietor / Independent Developer

Jun, 2002 – Present

- Released series of successful, award-winning titles (*CopyWrite, Transcriva, Temporis, XTabulator, Ziplight*)
- Built and maintained website, marketing, product lifecycle planning, and technical support
- Featured and reviewed in top publications such as the *New York Times, MacWorld Magazine, Apple's Staff Picks, and more*

Franklin County Career & Technology Center – Chambersburg, PA

Adult Education Instructor

Summers of 1996 & 1997

- High School student attending the school by day, adult education program instructor by night
- Designed and led “Hands-On Internet” and “Introduction to Personal Computers” evening courses for working adults with little to no computer experience

Various Companies – PA, MD, DC, VA

IT Manager / Network Engineer / Rogue Developer

1996 – 2007

- Worked in IT departments of variety of industries such as manufacturing, engineering, technical consulting, and finance
- Designed and maintained network and telecoms infrastructure for Fortune 500 businesses
- Designed and built intranet and public web sites for various employers
- Designed public touch-screen ATM and member services kiosk for a medium-sized credit union
- Replaced expensive outsourced services with cheaper, in-house solutions
- Mentored young professional entering the workforce
- Wrote hundreds of pages of illustrated internal process manuals for employees and septuagenarian board members
- Wore nearly every hat in the IT industry prior to becoming a full-time software developer

RECOMMENDATIONS

“Josh is one of the best developers I have ever worked with. He is truly interested in software development and is keen on expanding his skill set in Objective C and Xcode. He is fast in understanding complicated system and is able to contribute unique ideas in system design and implementation. Besides technology, he is also interested in identifying and utilizing best practices in software development. Josh also likes to work with other developers and share his knowledge with others. He has strong communication skills and a good sense of humor.” —
Yongjian Guo, 2010

“I hired Josh as a software developer for a very challenging scientific project. Josh was able to acquire the complex subject matter knowledge in a very short time and used his critical thinking and outstanding technical skills to deliver a very high quality product. Josh works well with his peers, is always ready to lend a helping hand and contribute his knowledge, and has forged very solid relationships with our scientific community.”
— **Stephan Bour, 2009**

PUBLISHED SOFTWARE

Pestle (v2)

Tabular text data processing for merging and transforming flow-cytometric data from FlowJo for importing into SPICE, written in Swift 5 and targeting macOS 10.12+. Version 2 is a vast improvement over the original in terms of user interface and data integrity. The work included a server-side component for usage tracking. The app is code-signed and distributed on NIAID's website with SPICE.

SPICE (v5-6)

Data mining and visualization bioinformatics application for multicolor flow-cytometric data, written in Objective-C and targeting Mac OS X 10.9+. It is used primarily by the NIH/NIAID Vaccine Research Center to analyze blood and tissue samples for the identification of effective vaccines. The work included server-side components for user registration and usage tracking. The app is code-signed and distributed on NIAID's website.

CopyWrite (v1-2)

One of the first "writing project managers" for Mac OS X, written in Objective-C and targeting (in version 2) Mac OS X 10.3+. It eschewed the complexities of word processors in favor of organization and data integrity and took the Mac writing community by storm. It has received many positive high-profile reviews in its day, as well as many mentions in book credits and dedications. It still had active users (of older Macs) up to its retirement in early 2019 (18 years of die-hard fans, despite its obvious age). Version 2 enjoyed over a decade of stable operation with updates necessary only to adapt to changes in the underlying OS.

Transcriva (v1-2)

A manual transcription application for an era of expensive and unreliable speech transcription technology, written in Objective-C and (in version 2) targeting Mac OS X 10.4+. It allows users to perform manual (listen-and-type) transcription, person-to-blurb attribution for multi-speaker transcripts, as well as the use of programmable keyboard shortcuts and USB foot pedal integration for transport control. It has earned numerous positive reviews and several high-profile features in well-known publications. The app has also remained a top seller (despite its obvious age) to present day.

Temporis (v1)

A visual historic timeline creator for illustration, written in Objective-C and targeting Mac OS X 10.4+. It allowed users to "draw" events (as points in time or spans of time) within the chosen range, expressible in any unit of time, as well as relative "sequential" units. It had many visual formatting features and automatically-sized itself to accommodate overlapping spans. It was for several years the first and only such application to offer direct manipulation of the timeline canvas (vs. manipulating a list of events with the drawn timeline as a passive view). Temporis was retired in 2014 with no new version.

XTabulator (v1-2)

A tabular data file editing tool written in Objective-C and targeting Mac OS X 10.6+. It gives users the ability to import, edit, filter, merge, and otherwise transform tabular data (comma-, tab-, pipe-, etc.-delimited text). Born out of frustration with other Mac apps' mangling of tabular text, this niche tool is still in heavy use today.

Ziplight (v1)

A Spotlight plugin written in Objective-C, targeting Mac OS X 10.4+. It added the ability to search the manifest contents of zip files (file and folder names, user comments), but would not index contents of files in the archive due to the complexities of Spotlight's indexing approach as well as available disk space and performance. Ziplight quickly rose to the top of Apple's Spotlight Plugin download page and remained there until the demise of their Downloads pages. There, it earned multiple Apple Staff Pick awards until it was "Sherlocked" by the inclusion of similar functionality in Mac OS X 10.6, when it was retired. Amusingly, more developers and future coworkers recognized Ziplight (because they were pleased users) than its author's name or other works.