

Jason Pepas

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OBJECTIVE:

- To partner with product and design teams and deliver robust, performant, native iOS applications. **Nine years** iOS experience, with a side of backend and mentoring.

EDUCATION:

- Bachelor of Science in Computer Sciences, University of Texas at Austin

Year of Sabbatical, (10/2019 - 1/2021)

- Shipped an iPhone / iPad app: **GridNotes**, a piano with a grid-based layout. See github.com/pepaslabs/GridNotes.
- *Programming projects*: **Lisp interpreter** (C), hash table (C), **assembler** for LC-3 (Python), **transpiler** for an alternative C syntax (Python), lexer generator (Python), parser generator (*incomplete*, Python), Sudoku solver (C, Python), snake game (C/SDL), LZO bindings for the Janet language. See *dev blog* at jason.pepas.com.
- *Electronics projects*: A/B/X testing audio switchboard, audio DAC circuit board designs.
- Attended David Beazley's *Structure and Interpretation of Computer Programs* course and *Compilers* course.

iOS Tech Lead, FloSports, Inc. (1/2017 - 10/2019)

- Lead the greenfield development of the FloSports iPhone and tvOS video streaming apps.
- Implemented an API-driven widget layout architecture for dynamic native content.
- Assisted in design and development of iOS-specific API endpoints (PHP) and encouraged "latency-first" thinking among the API team.
- Partnered with the design team on a design language / widget set, and implemented a debug menu to allow designers to tweak design elements without requiring a rebuild.
- Encouraged "demo-driven development" to maintain high developer velocity.
- Worked closely with product owners to refine requirements and stay on-budget.
- Enacted a variant of Google's 20% time ("developer's choice").
- Lead a weekly tech-talk screening / discussion group.
- Co-lead a weekly programming puzzles guild.
- Lead a robot build-day outreach for the Latinitas youth group.

Senior iOS Developer, Khan Academy (remote, 4/2016 - 1/2017)

- Implemented network request exponential backoff to guard against unintentional DDOS of buggy API deploys.
- Enhanced offline UX by storing (and resubmitting when online) user progress points

earned while offline.

- Implemented remote icon fetching to reduce app bundle size by 14MB.
- Extended the API to serve video streams optimized for low-bandwidth.
- Further automated the deploy process using Python and Bash scripting.
- Gained exposure to the ReactiveCocoa functional-reactive framework.
- Hackathon project: prototyped automatic Swift code generation based on API output structure.

Senior iOS Developer, uShip, Inc. (4/2013 - 4/2016)

- Adopted a “triple model” pattern: a DataModel, StyleModel, and LayoutModel per UIViewController. This separation of concerns reduced the cost of iterations from the Design team.
- Migrated from Objective-C to Swift 1.2 through a strategy of attrition.
- Provided working demo apps to the design team to quickly iterate on design concepts.
- Guided the API team with feedback to better suit the specific needs of a mobile device and optimize overall UX.
- Split the app into frameworks to speed up build times.
- Implemented a UI test automation solution using Subliminal.

iOS Developer, Phunware, Inc. (10/2010 - 3/2013)

- Served as Lead developer on four iOS projects (two iPad apps), assisted on many other iOS projects.
- Implemented an asynchronous rendering queue to optimize rendering performance of the Perler iPad app (this was so much fun!).
- Established a company-wide repository of reusable code (Cocoapods-based).
- Scripted the process of adding new targets in Xcode projects, allowing for the creation of templated apps (one of which had over 45 targets).
- Implemented a server-side API caching service to enhance the robustness and latency of customer API endpoints. The customer’s monolithic 250KB XML feed was scraped and split into screen-specific 8KB compressed binary plists, hosted via S3. This solution insulated the app’s UX from the customer’s API latency / instability while requiring no developer investment from the customer.
- Wrote a push-notification service provider (*Python*).
- Wrote an app sales screen-scraping and customer report generation system (*Python*).
- Wrote a continuous-integration build server (*Python, Bash*).
- Created AWS cloud server images.
- Deployed a wiki to document the company’s evolving infrastructure.

OTHER HONORS:

- Eagle Scout (Troop 337 - Katy, TX)