Juan Patten

A creative problem solver with good taste & a soft spot for the human side of computing

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Summary

A former startup founder, I thrive in fluid environments that require moving between domains and juggling big-picture vision & nitty-gritty details. I'm a "do-it-all" software person, with strong skills in all stages and aspects: from idea to go-to-market, from architecting distributed systems to optimizing low-level performance to crafting beautiful UI's & delightful documentation. I particularly excel at exploration, prototyping and greenfield development.

Experience

Founder, Designer, Developer · Everyday Games · 2023 – Present

I set out to explore Swift as a C++ replacement, and to create a fun, tastefully-designed game that everyone can play. The result is Tenet — everyday.games/tenet — a surprisingly deep game built around a delightful, simple core. I'm the sole developer and designer, responsible for:

- UI design that's unique yet tasteful, and perfectly at home on iOS. Implemented using UIKit and SwiftUI.
- Performance optimization using LLDB and Instruments, Persistence layer using CloudKit and CoreData
- Internal tools built directly into the app, from puzzle authoring to content management & publishing
- Gameplay and puzzle design, branding and website design

Tech: Swift, UIKit, SwiftUI, CoreAnimation, CoreData, CloudKit, LLDB, Python, HTML, CSS

Independent Research · 2020 – 2023

For the past few years, I've been doing R&D for a next-generation graphic design tool, during which I've…

- Designed and implemented a multithreaded, high-performance Reactive Dataflow engine in C++
- Implemented foundational C++ libraries from scratch, including full-featured structured concurrency, a DOM-like hierarchical scene tree, custom data structures, generic copy-on-write pointers, and more
- Designed and implemented a Tcl-like scripting language in C with some interesting internals like an insertion order-preserving Robin Hood hash map, and an extensible type system
- Studied computer-aided design (CAD) tools & paradigms across a wide variety of disciplines

I also enjoy building small but useful tools such as…   *(more at **juanpatten.com**)*

- A powerful, elegant text templating engine — github.com/jrpat/hoot
- A handy calculator sketchpad — jsjot.pages.dev – github.com/jrpat/jsjot
- Possibly the world's fastest unicode browser — brunicode.com – github.com/jrpat/bruni

Ask me about that time I built a crossword game engine in pure SQL

Tech: C++, C, SQL, Shell, Lua, SQLite, Tcl, HTML, CSS, JavaScript, Make

Founder, CEO, CTO · Rafflecopter.com · 2011 – Present

- Bootstrapped from an idea on a napkin to a product with thousands of paying customers in 30 months
- Grew to a company with a dozen employees and nearly $3M ARR 2 years later, never taking outside funding
- Recruited, managed, and mentored an incredibly talented team of engineers and designers
- Headed product design & strategy, UI design, and back-end system architecture
- Lead the design and implementation of the back-end distributed system serving 20M+ impressions per day, handling at peak 200K+ concurrent users and tens of thousands of submissions per second
- Designed and implemented a high-throughput, horizontally scalable job queue using Redis
- Designed and optimized a MongoDB schema that performantly handles over 1TB of data in production
- Created a design language and implemented a UI system using ClojureScript, TypeScript, and React
- Designed semantic, HATEOAS REST APIs and implemented them server-side using Clojure

Tech: JavaScript, Python, Clojure, TypeScript, React, HTML, CSS, MongoDB, Redis, Node.js, Django, AWS, REST API Design

Early Career

Web Designer · A Small Orange Web Design · 2009 – 2011

- Designed and implemented web sites and progressive web apps for a number of clients using PHP, HTML, CSS, and JavaScript.

Co-Op Intern · National Security Agency · 2006-2008

- Recruited and hired as a college freshman
- Obtained and kept a Top Secret security clearance
- Performed 4 "tours of duty", alternating semesters from summer 2006 through summer 2008
- Worked closely with civilians and soldiers from all branches of the military to provide meaningful, direct support to US initiatives
- Designed and implemented several small tools that are still used every day by thousands of agency personnel

Unfortunately, I'm unable to discuss details about my work

Education

BS in Computer Science · Georgia Institute of Technology · 2005 – 2010

- 3.9 GPA, 4.0 Major GPA, graduated Summa Cum Laude
- Specialized in Computer Graphics and Artificial Intelligence
- Studied planning graphs under Merrick Furst as a freshman

Tech Skills

Languages: JavaScript, HTML, CSS, Swift, C/C++, Python, TypeScript, SQL, Clojure, ClojureScript, Shell, Sass, Lua, Tcl, PHP, Makefile, Vimscript, Emacs Lisp, Janet Lisp, LaTeX, *…more…*

Technologies: React, Node.js, UIKit, SwiftUI, Linux, MongoDB, Redis, SQLite, PostgreSQL, MariaDB, Qt, CoreData, CloudKit, Express, Django, Flask, REST, AWS, *…many more…*

Tools: Git, Sketch, Figma, Vim, Xcode, Make, Cmake, Ninja, Emacs, LLDB, GDB, Visual Studio Code, Houdini, Maya, Excel, *…many more…*

Soft Skills

I'm extremely detail-oriented without losing sight of the big picture. I'm a conscientious team member, thoughtful mentor, effective communicator, and exceptional prioritizer. I thrive under pressure, and am skilled at balancing the concerns of multiple disciplines, stakeholders, and scopes of concern.