

Fernando Trigos

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Raleigh, NC

Summary

Senior Software Engineer. Principal product architect and developer. Writer and speaker. Advanced technical expertise in Dart, Flutter, Swift, React, Node, Javascript. Working professionally since 2005.

Professional Skills

Rich history leading the development of all aspects of complex software systems. Experience building mobile apps, developer tools, cloud-based APIs, SaaS products, and open source projects.

Extensive background building mobile applications in Dart, Flutter, and Swift; web applications using React, Node, and Javascript; and desktop applications using Swift and C++.

Seasoned expertise researching and designing new technical solutions; deploying, monitoring, and instrumenting software systems; designing new experiences; testing software systems and components.

Extensive track record leading software teams; experienced speaker, mentor, and agile coach; proven track record working remotely; excellent communication skills.

Fast learner and very adaptable; emotionally competent with high levels of intuition, intelligence, and creativity.

Work Experience

Synco

Lead Software Engineer • June 2024 - Present • teamsynco.io

Led the development of a real-time chat application with offline functionality.

Built front-ends in iOS, Android, and Web.

Fully remote role, worked with 3 other senior developers, reported directly to CTO.

Built UI features in iOS and Android using Flutter.

Developed mobile native integrations using Flutter method channels, Swift, and Kotlin.

Learned Swift and SwiftUI to develop an iOS Share Extension.

Developed a WebSockets client using Typescript.

Worked with GraphQL clients on web, Flutter, Swift.

Used Riverpod in Flutter.

Worked with Isar, a mobile NoSQL database.
Used React, Apollo, GraphQL in the web.
Implemented new features behind feature flags.
Instrumented mobile device logging and remote error reporting.

Collaborated with product team to validate product design.
Worked with designers to clarify requirements.
Implemented and promoted Apple's Human Interface Guidelines.

Researched and developed the integration between a Flutter app and an iOS share extension.
Managed hard memory requirements imposed by iOS.
Used AI coding assistants: Github Copilot and Cursor.

Exceeded very high expectations.

Monarch

Principal Developer • April 2020 - Present • monarchapp.io

Created and built Monarch, an open source developer tool.

Designed and developed the Monarch developer experience using first principles.
Designed the Monarch architecture within tight budget and technical constraints.
Researched and prototyped very difficult technical solutions.

Used Dart and Flutter to build and test various components: CLI, build scripts, web server, packages, gRPC clients and servers, code generation, samples, etc.
Used low-level APIs from both Flutter and the Flutter Engine. Learned Swift and C++ to program features on all 3 major operating systems. Learned UIKit on macOS, Win32 on Windows, and GTK on Linux.

Developed a build system using Dart, bash, CMake, etc.; which runs on macOS, Windows, and Linux; it uses all Flutter SDK versions. This build system optimized my development time, saving me hundreds of hours.
Built a backend API to manage Monarch versions and binaries using Dart and PostgreSQL.
Deployed Monarch binaries, assets, and components to AWS and Heroku.
Released new versions of Monarch regularly.

Directed all product content creation including: writing website copy, documentation, video scripts, presentation scripts, blogs, and social media posts. Presented Monarch to developer groups internationally.
Managed a developer contractor and content writer.
Maintained open source project: wrote contribution guides, communicated with the community, addressed and prioritized issues, reviewed pull requests.

Implemented and maintained: Monarch's website using Docusaurus and React; analytics using Elasticsearch, Javascript and D3.
Fully remote role.

Dropsource

Technical Lead • July 2015 - March 2020 • www.dropsource.com/platform

Led the team responsible for building a complex visual code editor in the browser.

Used React and Flux to build the front-end using a single page application model.

Used Node.js to build the code editor API.

Designed an Event Sourcing (or CQRS) architecture to store the application's data.

Implemented graph data models from the time-series of events.

Worked within a complex software system which spans multiple components, servers, and programming languages.

Managed the deployment of all system components by coordinating with all team members.

Configured Jenkins to build and test various system components.

Ran retrospectives and introduced best practices to the rest of the team.

Collaborated with designers and product managers to create requirements for new features.

marGo

Senior Software Engineer • April 2014 - May 2015 • margo.me

Worked hand-in-hand with the CTO to develop a highly scalable cloud distributed system.

Developed the backend of the system using C# and ASP.NET MVC.

Built the web front end using Javascript and Knockout; and a mobile app using Xamarin.

Used Event Sourcing to record events in a time-series fashion in Cassandra.

Used Redis for caching of data models; and queue services, like SQS, to scale out the system.

Configured the system to be highly available in AWS.

Performed zero-downtime deployments.

Integrated with various cloud services like SendGrid, Twilio, PubNub, etc.

Introduced Kanban and unit test practices to the team, drastically improving product quality.

Ultimate Software

Senior Software Engineer • Feb 2007 - April 2014 • www.ukg.com

Led several teams that developed features and integrations inside a large enterprise SaaS software system.

Led a team who received several bonus awards due to high performance.

Developed web solutions using C#, ASP.NET, WCF, JavaScript, jQuery, SQL. Built integrations between products using a service-oriented architecture. Worked extensively with unit test frameworks.

Coordinated efforts with teams in other areas such as UX, security, performance, etc.

Reviewer of the technical level of other engineers across the entire organization.

Ran daily stand-ups and retrospectives.
Worked closely with product managers and designers.
Worked remotely for 3 years.

Process Engineer Manager • Jan 2010 - Aug 2010

Transitioned the company's 30 Scrum teams over to Kanban.
Attended several Agile training sessions.
Trained 30 teams on Kanban principles and implemented department-level process initiatives.

Coached 3 major teams in agile methodology.
Worked with team leads to improve their process.
Led a 30-person team.

Strategic Healthcare Management Systems

Software Architect • 2006 - 2008

Designed and developed an entire healthcare insurance management system using .NET, C# and SQL.

General Medical Applications (gMed, Inc.)

Software Engineer • 2005 - 2006

Developed new functionality and supported existing functionality using ASP.NET and SQL.

Education

Masters in Computer Science

Florida International University
Aug 2005 - Apr 2007
Thesis in Software Adaptability, hot-swapping code at run-time.

Bachelors in Computer Engineering

Florida International University
May 2003 - Apr 2005
Graduated Summa Cum Laude

Other Highlights

I have given numerous presentations, talks, and mentored many developers during my career. You can find more details here: trigoso.xyz/talks.

I was one of ten international recruits accepted into the United States Air Force Academy.