Fernando Trigoso

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Summary

Senior Software Engineer and Technical Leader with 20+ years building complex software systems across mobile, web, and desktop platforms. Expert in Flutter, React, and modern AI-augmented development workflows. Passionate about finding sound solutions.

Professional Skills

Core Technical Areas
Mobile: Flutter, Dart, Swift, iOS/Android native development.
Web: React, TypeScript, JavaScript.
Desktop: Swift, C++, Flutter.
Backend: Node.js, C#, Event Sourcing, PostgreSQL, MongoDB, Cassandra.
Cloud: AWS (S3, RDS, Lambda, ECS, SQS), GCP (Cloud Run, Cloud SQL, Firebase, Firestore), Docker, Heroku.

AI-augmented Development
Built a framework for AI agents so they produce code that is verifiable by humans.
Designed and implemented an AI-augmented development workflow.
Wrote context rules to generate specifications from requirements and UI mockups.
Configured Claude Code, Linear, and Cyrus to produce code from linear tickets.
Set up Sentry to create Linear tickets from errors, which were then worked on by agents.
Configured PR review agents to review code changes and provide feedback.
Integrated with AI APIs and SDKs: Cloud Translation API, Computer Vision SDK, AI summarization, AI transcription, etc.
Experience with various AI tools: Cursor, Claude Code, ChatGPT.

Leadership & Architecture
Led teams of 15+ software professionals across distributed environments.
Architected complex systems spanning mobile, web, desktop, and AI components.
Established technical standards, coding practices, and development workflows.
Interviewed, designed code challenges, and coached developers.

Development Practices
Built AI-augmented development frameworks.
Comprehensive build systems supporting multiple platforms, tools, and frameworks.
Implementation of WebSockets, push notifications, feature flags, logging, crash reporting, code push.
Zero-downtime deployments and high-availability cloud configurations.
Contributed to open source projects: Monarch, Flutter SDK.

Communication & Leadership
Cross-functional collaboration with UX designers, Product Managers, and QA teams.
Public speaking at international conferences and developer meetups.
Stakeholder communication through demos and technical presentations.
Wrote documentation for open source projects and developer tools.

Work Experience

Tissue Health Plus

Lead Software Engineer • January 2025 - November 2025 • tissuehealthplus.com

Led the development of a healthtech SaaS platform.
Built mobile and web applications using Flutter, Flutter Web, Riverpod, and gRPC.

Led team of 15 software professionals across distributed environments.
Implemented critical features and components of the product: PlutoGrid, Auth0, Flutter Web, routing.
Designed AI-augmented framework enabling AI tools to generate verifiable code from requirements.
Integrated with on-device computer vision SDK.
Established technical standards and coding practices, improving team productivity.
Removed major impediments: solved repo problems and identified process issues.
Contributed to Event Sourcing architecture and cross-team initiatives.
Conducted technical interviews and prepared stakeholder demos.
Reworked large areas of the product due to performance and quality issues.
Used various developer and AI tools: Cursor, Claude, Monarch.

Fully remote role.
Worked with other tech leads and offshore developers.
Received consistently positive feedback from stakeholders and company leaders.

Pawboost

Senior Software Engineer • December 2024 - January 2025 • pawboost.com

Built a mobile app for iOS and Android using Flutter.
Built GCP backend using Cloud Run, Firebase and Firestore.

Simplified the original codebase.
Built and deployed a GCP backend using Cloud Run, Firebase and Firestore.
Built scripts to deploy and release apps to the App Store and Google Play Store.

Synco

Lead Software Engineer • June 2024 - December 2024 • teamsynco.com

Led the development of a real-time chat application with offline functionality.
Built applications for iOS, Android, and the web using Flutter, Swift, and TypeScript.

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.

Fully remote role, worked with 3 other senior developers, reported directly to CTO.
Exceeded very high expectations.

Monarch

Principal Developer • April 2020 - June 2024 • monarchapp.io

Created and built Monarch, an open source developer tool.
Built desktop apps and command-line tools for macOS, Windows, and Linux using Dart, Flutter, Swift, and C++.

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 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

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

Built a complex visual code editor in the browser using React and Node.js.
Led the team responsible for building the front-end and middleware components of the platform.

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

Built a highly scalable cloud distributed system using JavaScript, C#, ASP.NET MVC, and 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.
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.

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.

Worked hand-in-hand with the CTO.

Ultimate Software

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

Developed web solutions using C#, ASP.NET, WCF, JavaScript, jQuery, SQL.
Led several software teams inside a large enterprise SaaS software system.

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.
Led a team who received several bonus awards due to high performance.
Worked closely with product managers and designers.
Worked remotely for 3 years.

Ultimate Software

Process Engineer Manager • Jan 2010 - Aug 2010

Worked with several team leads to improve their team's performance.

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

Talks

Presented Monarch in New York City, Washington D.C., Lima, and Charlotte, Fall 2023.
Presented Event Sourcing at the Triangle Node.js Meetup, May 2016.
Taught an Intro to React course, 2016.
Presented Scaling Kanban at the Agile Conference, 2010.
Presented Trap.Net at a Software Engineering conference in Boston, 2007.

For more details, visit: trigoso.xyz/talks.

Other Highlights

One of ten international recruits accepted into the United States Air Force Academy.