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PROFESSIONAL SUMMARY

Communication-minded Senior Software Engineer specializing in AI-native, agent-addressable systems. I use clean architectural principles to build applications that are easy for both humans and LLM agents to understand and control. By maintaining a clear North Star and making intentional architectural decisions, I substantially accelerate development and debugging by allowing business logic to run independently of heavy frameworks - locally, in CLIs, and in CI. This approach prevents the code duplication and drift that occurs when new functionality is retrofitted onto existing systems, especially LLM-driven functionality that introduces agentic behavior.

EXPERIENCE

Shopify

March 2026 – July 2026

Senior Software Engineer - React Native

Remote

- Joined Shopify's Core Mobile team to help transition mobile experiences toward AI-native architecture while also delivering merchant-facing product work.
- Prototyped AI-native mobile architecture patterns that made app state and actions addressable by LLM agents across login, home, product list, and product detail flows.
- Built local Sidekick developer tooling so a development agent could exercise Shopify in-app AI behavior through the mobile WebView.
- Led mobile delivery for Flex Collections details, working through API versioning, GraphQL payload, header, and backend readiness issues.
- Modularized identity, authentication, product list, and product detail logic for local and CI execution outside the full mobile binary.
- **AI-Native Mobile Architecture And AI Addressability:** Rapidly prototyped composable architecture patterns that enabled LLM agents to read application state and trigger actions within mobile application boundaries. Prototyped architecture across login, home, product list, and product details flows. Focused on making application state and actions accessible to LLM agents without coupling the logic to one UI surface. Used architectural principles that allowed business logic to run outside the main application binary, including from a developer laptop or CLI. Helped shape architectural ideas for the next phase of Shopify mobile architecture and native migration work. Technologies: React Native, Swift, CLI Tooling Themes: AI-native Architecture, AI Addressability, Agentic Engineering, Modular Architecture, Dependency Isolation
- **Sidekick Developer Tooling:** Built tooling that allowed a local AI agent running on a developer laptop to interact with Sidekick, Shopify's in-app AI agent embedded in the mobile app through a WebView. Added tooling and a skill so an LLM agent on the developer machine could interact with the LLM agent running inside the phone or simulator. Built additional tooling to simulate and debug Sidekick responses as they would be received by the mobile system. Substantially improved debugging speed and developer experience for mobile Sidekick behavior. Technologies: React Native, React Native WebView, Sidekick, LLM Agents Themes: Local Agent Tooling, Skill Creation, Developer Experience
- **Flex Collections:** Led mobile development for the Flex Collections details project, expanding how merchants create dynamic, rules-based product collections. Navigated shifting requirements, incomplete backend APIs, and divergent web/mobile API strategies. Built custom debugging tools and agent-compatible CLI utilities to probe GraphQL endpoints with the same authentication, headers, versions, and payloads used by the mobile application. Worked through backend workarounds needed before the mobile versioned API was fully ready. Built strong working relationships with backend and web frontend teams and closed the final P0 ticket on the project. Delivered about one week behind the web team despite the web team having a significant head start. Technologies: React Native, GraphQL, CLI Tooling, API Versioning Themes: Agent-compatible Debugging, Cross-team Collaboration
- **Modularized Core Features For Local And CI Execution:** Modularized core features so they could run independently in CLIs and improve build performance, cacheability, and CI cost. Modularized identity and authentication so the module could run in both a CLI and the application binary. Applied the same pattern to

product list and product details. Isolated dependencies so heavy code did not need to be rebuilt while iterating elsewhere. Enabled Swift-side compilation on Linux boxes where possible instead of requiring Mac CI for every build step. Technologies: Swift, React Native, Linux CI, Mac CI, CLI Tooling Themes: Dependency Isolation, Build Caching, CI Cost Reduction

- Technologies: React Native, Swift, TypeScript, GraphQL, CLI Tooling

Oscar Health

April 2025 – March 2026

Senior Software Engineer

Remote

- Worked on Oscar member and CareGuide experiences, with a major focus on LLM-assisted workflows, internal search relevance, and Super Agent member interaction systems.
- Built web-to-app download banners that improved app downloads by roughly 230% over the trial period.
- Designed and built Rosco member search, a context-aware CareGuide search experience that improved call resolution by roughly 12% in A/B tests and reduced average call time by roughly 2.5 minutes from an approximately 38-minute baseline.
- Led Follow-Up Actions for Super Agent, Oscar's LLM-driven member interaction system, across Python, gRPC, React, and React Native surfaces.
- Helped set up self-hosted Langfuse for LLM observability, tracing, cost tracking, analytics, and feedback collection.
- **Web-To-App Download Banners:** Built onboarding download banners on the Oscar website to funnel traffic to mobile applications. Added custom HTML headers that enabled the iOS app install prompt/banner path. Worked through a mixed Jinja, Flask, and React web stack. Investigated Android native install prompt behavior across older Android emulators, Android ROMs, and Chrome versions. Improved downloads by roughly 230% over the trial period. Technologies: Jinja, Flask, React, Chrome Debugging
- **Rosco Member Search:** Designed and built a net-new context-aware member search experience for CareGuides on Rosco, Oscar's internal CareGuide platform. Built frontend and backend support for CareGuide-relevant, member-specific search results. Added intelligent acronym expansion, fuzzy matching, and LLM-powered result synthesis. Surfaced relevant member-specific issues such as denied claims and misfilled prescriptions. Used caching, cache expiration, cross-tab message passing, and custom React hooks to keep multiple tabs synchronized. Partnered with CareGuides, product, and design through early prototyping and analytics review. Improved call resolution by roughly 12% in A/B tests. Reduced average call time by roughly 2.5 minutes from an approximately 38-minute baseline. Technologies: React, Flask, Custom React Hooks, Cross-tab State Synchronization, LLM Synthesis Themes: Caching, Fuzzy Matching, Product/Design Collaboration
- **Super Agent Follow-Up Actions:** Led development of Follow-Up Actions for Super Agent, Oscar's LLM-driven agentic system for asking questions about membership. Built a bespoke methodology for rendering rich UI in the chat window, including multiple-select questions, free-form follow-ups, yes/no prompts, provider cards, doctor cards, office cards, and MRI location cards. Built the system across a Python application, gRPC layer, messaging service integration, React, and React Native. Designed and implemented a type-safe mapping layer from protobuf/gRPC responses to React and React Native view models. Delivered the mapping logic as a pure JavaScript library shared by web and mobile applications while leading a team of three. Technologies: Python, gRPC, Protobuf, React, React Native, Pure JavaScript, LLM Chat UI, Messaging Service Integration Themes: LLM Integration, Cross-team Collaboration
- **Self-Hosted Langfuse:** Set up self-hosted Langfuse for LLM observability, tracing, cost tracking, analytics, and feedback collection. Worked on the architecture for a self-hosted Langfuse deployment and collaborated with infrastructure teams to set it up. Used Langfuse for OpenTelemetry-style observability, LLM response tracing, cost tracking, analytics, and feedback collection. Helped establish a standard for auditing and improving agent responses while avoiding unnecessary SaaS dependency. Reduced compliance overhead and risk associated with sending potentially personally identifiable information through third-party SaaS pipelines. Technologies: Langfuse, OpenTelemetry, LLM Observability Themes: Cost Tracing, Feedback Collection, Infrastructure Collaboration, HIPAA-sensitive Data
- Technologies: React, React Native, Python, Flask, Jinja, gRPC, Protobuf, Langfuse, OpenTelemetry

Ephemera

September 2024 – February 2025

Staff Software Engineer - React Native

Remote

- Worked on XMTP and Convos. XMTP is an extensible decentralized message transfer protocol, and Convos was an open-source, extensible, open-protocol messaging application with privacy and encryption as core product constraints.
- Encapsulated XMTP SDK consumption behind a dependency layer and dedicated client management class so protocol implementation details no longer leaked throughout the application.
- Extracted complex wallet creation, identity management, and cross-device linking coordination from tangled React code into XState machines with dependency injection.
- Designed a responsive chat composer with user search, Ethereum address search, group search, optimistic recipient lookup, and inline conversation creation.
- Led Firebase App Check integration across React Native, Android, iOS, and backend systems to increase trust that backend requests came from legitimate application binaries.
- Championed ADRs and used LLM-assisted transcript workflows to turn architecture discussions into agent-readable decision records.
- **Dependency Encapsulation And XMTP Client Management:** Properly encapsulated XMTP SDK consumption behind a dependency layer so SDK implementation details no longer leaked throughout the application. Modeled core application invariants at the right abstraction boundary, including ensuring an active XMTP account existed. Stored current account state in memory so some account checks could be synchronous where appropriate. Introduced a dedicated client management class and dependency layer around XMTP SDK usage. Exposed a generic message transfer protocol dependency using the message shapes the app actually needed. Made the codebase easier to reason about, mock, test, and run independently of the React Native binary. Technologies: XMTP, React Native, TypeScript Themes: Dependency Injection, Dependency Encapsulation, Messaging Protocol Abstraction
- **XState Behavior Control For Wallet And Identity Flows:** Extracted complex wallet creation, identity management, and cross-device linking coordination from tangled React code into XState machines with dependency injection. Coordinated wallet creation with Privy, wallet availability, Web3 identity creation, remote wallet creation, and existing wallet linking. Extracted business logic into predictable, reproducible behavior outside React. Used XState because it is consumable from React, React Native, and CLI contexts. Improved modularization by clarifying feature boundaries and dependency borders. Technologies: XState, Privy, XMTP, React Native, CLI Tooling Themes: Dependency Injection, Modular Architecture, CLI-exercisable Logic
- **Chat Composer:** Designed and implemented a highly responsive chat composer for starting conversations in Convos. Supported user search, Ethereum address search, group search, optimistic recipient lookup, and inline conversation creation. Built snappy UX around slow blockchain operations using optimistic mutations, cache reads, data normalization, and error handling across navigation flows. Included polished UX details such as recipient pills that could be backspaced or deleted. Helped migrate toward a cleaner Express REST backend from a cluttered GraphQL codebase where too much work had been done client-side. Technologies: React Native, React Query, XState, Express, REST, XMTP Themes: Optimistic Mutations, Data Normalization
- **Firestore App Check:** Led Firebase App Check integration across React Native, Android, iOS, and backend systems to increase trust that backend requests came from legitimate application binaries. Built custom native support with Expo Native Modules API to create platform-specific token generation and extraction for React Native. Generated and attached App Check tokens, especially for account creation and login/authentication flows. Protected early account and login flows before later wallet signatures could provide additional trust. Technologies: Firebase App Check, Expo Native Modules, React Native, Android, iOS Development Themes: Backend Security
- **React Query And Optimistic Mutations:** Introduced React Query DevTools and stronger React Query practices, focused on complex optimistic mutations. Built optimistic workflows for slow blockchain operations. Handled errors that could occur after users had navigated past the originating screen. Used cache introspection to debug and manage data flows. Improved UX by making interactions feel immediate while retaining correctness. Technologies: React Query, React Native Themes: Optimistic Mutations, Caching
- **ADRs And Agent-Readable Architecture Documentation:** Championed Architectural Decision Records to document architectural choices, tradeoffs, and North Stars, then automated their creation with transcripts, diarization, LLMs, and an ADR skill. Documented key architectural decisions, what the team was removing, what it was keeping, and why. Recorded and transcribed architectural discussions, using speaker diarization to isolate who said what. Fed transcripts to an LLM with an ADR skill to generate ADR drafts with minimal manual overhead. Created reference material that became useful to AI agents as agentic coding workflows

became more usable. Technologies: Deepgram, LLM Agents Themes: Architectural Decision Records, Skill Creation, Skill Maintenance, North Star Alignment

- **Privy And Web3 Integration:** Built Web3 integration using Privy to support passkey authentication, wallet-backed trusted actions, account abstraction, gas sponsorship, and XMTP account creation. Used Privy as a wallet provider for trusted app actions such as signing messages and signing message requests. Supported account abstraction and gas sponsorship so users could send money without manually paying gas. Created the Ethereum account needed to create an XMTP account and later supported Solana creation for XMTP accounts. Supported passkey authentication, noncustodial wallet flows, and JWT-secured communications. Technologies: Privy, Passkey Authentication, Solana, XMTP, Smart Contract Wallets, Noncustodial Wallets, JWT Authentication Themes: Blockchain Integration
- Technologies: Expo, Privy, thirdweb, Noncustodial Wallets, Smart Contract Wallets, Passkey Authentication, XMTP, Firebase App Check, JWT Authentication, React Native, TypeScript, React, React Native Testing Library, Jest, React Query, React Navigation, zod

Jabra Hearing

August 2023 – September 2024

Senior React Native Engineer

Remote

- Worked on React Native hearing-aid application architecture, Bluetooth pairing reliability, state-machine modeling, state sharing, dependency management, testing, and demo-mode support.
- Systematically diagnosed and resolved Bluetooth pairing issues caused by conflicting parent and child XState machines entering loops.
- Designed and developed a proprietary state management library similar in spirit to early Zustand, with Zod validation, persistence, migrations, and pure JavaScript runtime support.
- Replaced leaky React-dependent static classes with clean observable stores and fakeable dependencies, simplifying tests and enabling demo mode.
- Directed the XState v4 to v5 upgrade across approximately 25 to 30 state machines with zero production regressions.
- Established canonical best practices for XState architecture and championed code architecture and testing practices.
- **Bluetooth Pairing Reliability:** Systematically diagnosed and resolved Bluetooth pairing issues caused by conflicting parent and child XState machines entering loops. Identified loops where parent and child state machines retrIGGERED checks under the wrong conditions. Used visualization tools, careful log inspection, and edge-case UI behavior to isolate the issue. Refined the state chart architecture to eliminate loops and model valid transition conditions more clearly. Technologies: React Native, XState, Bluetooth Themes: QA
- **Proprietary State Management Library:** Designed and developed a proprietary state management library similar in spirit to early Zustand. Created a message-driven state sharing paradigm where developers defined state shape and update methods could be derived. Integrated Zod validation so data could be checked at runtime and compile-time-adjacent boundaries. Supported storage on disk, in a local database, and in memory, plus schema migrations when state shape changed. Ran in pure JavaScript, worked outside React, and made observation/listener needs easy to add. Technologies: TypeScript, zod, XState, Pure JavaScript Themes: Observable Stores, Schema Migrations, Testability
- **Dependency Management And Demo Mode:** Replaced leaky React-dependent static classes with clean observable stores and fakeable dependencies, simplifying tests and enabling demo mode. Reframed dependencies as observable stores with schemas, actions, and messages. Made side effects and state changes explicit. Made it easier to create fake implementations for tests and demo mode. Technologies: React Native, TypeScript Themes: Observable Stores, Dependency Encapsulation
- **XState v4 To v5 Migration:** Directed the XState v4 to v5 upgrade across approximately 25 to 30 state machines while de-risking the migration. Started by prototyping the migration on a critical pairing state machine. Symlinked XState v5 into its own namespace so XState v4 and v5 could coexist in one Node modules project. Migrated tests, performed careful QA, and monitored analytics for bug, performance, or degradation signals. Zero production regressions. Technologies: XState v4, XState v5, React Native Themes: QA
- Technologies: React Native, TypeScript, XState, RxJS, Actor Model, Bluetooth, Jest, React Testing Library, zod, Unleash

Bakkt

Fullstack Software Engineer

August 2020 – March 2021

Remote

- Built React Native and Node.js systems for Bakkt Wallet and application gateway work, with an emphasis on design systems, refactoring, and native wallet integrations.
- Led development of Bakkt Wallet and Application Gateway Proxy.
- Led refactoring efforts and standardized best practices.
- Collaborated with VP of Design for scalable DesignOps.
- Applied finite state machines for complex interactions.
- Implemented native Objective-C and Java modules for React Native to interface with Google Wallet and Apple Pay.
- Technologies: Node.js, React, React Native, Apollo GraphQL, TypeScript, Yarn Workspaces, Figma, Storybook

TCT Ministries

Android, iOS, React Native Developer

January 2015 – July 2020

Remote

- Led cross-platform media catalog and streaming applications across Android, iOS, React Native, and backend integrations.
- Led cross-platform media catalog and streaming applications development.
- Reduced codebase size using React Native and GraphQL.
- Built greenfield software for media applications.
- Managed Google Play Store and Apple App Store listings.
- Migrated legacy Objective-C iOS and Java Android code bases to React Native.
- Interfaced with Senior VP to understand product direction, customer needs, and implementation timelines.
- Technologies: Python, Node.js, iOS Development, Swift, Kotlin, Java, Objective-C, Android Development, React Native, Apollo GraphQL, Brightcove SDK, Android TV, Firebase, Expo

NOTABLE PROJECTS

NoIssue

Project management software integration component

January 2023 – January 2023

- Convenient front-end tool that integrates with GitHub repositories to provide a comprehensive overview of issues from within a web app.
- Winner of Orlando ODevs XState 2023 Hackathon
- Link: <https://github.com/blueberrychopsticks/2023xstate-hack-odevs>
- Technologies: XState, React, Github API

Proof of Listening

Solana hackathon project

2023 – 2023

- Cross-platform audio recognition system with Solana NFT minting capabilities and dynamic mint pricing based on on-chain metadata.
- Built cross-platform audio recognition system with Solana NFT minting capabilities.
- Implemented dynamic mint pricing based on on-chain metadata.
- Integrated ShazamKit and whisper.cpp for audio processing.
- Link: https://youtu.be/OMApXzEV_co?t=58
- Technologies: Solana, Rust, React Native, TypeScript, Firebase, ShazamKit, Swift Kitura, Python, SwiftUI

mtnBooth Twitter Solana Pay Integration

Web application

2022 – 2022

- Web application for minting mtnFrens NFTs integrated with Twitter.
- Created a web application for minting mtnFrens NFTs integrated with Twitter.
- Technologies: Next.js, Open Graph, Solana, Solana Pay

2018 – 2019

Breed Up

Pet breeding management application

- Location-based dog owner social platform with pet breeding management features.
- Location-based dog owner social platform.
- Real-time database with Firebase integration.
- Geo-based filtering with GeoJSON.
- Interactive community features and notifications.
- Link: <https://github.com/technoplato/BreedUp>
- Technologies: React Native, Firebase, Firebase Storage, Geojson, TypeScript, react-native-photo-picker

2019 – 2020

Beauty Time

Mobile application for aestheticians' timer management

- Mobile application for managing multi-step lash and brow treatment timers.
- Designed and developed a sophisticated and intuitive React Native application for "Beauty and the Brow" esthetician practice.
- Streamlined multi-step timing procedures for lash and brow treatments.
- Implemented comprehensive timing system for beauty services.
- Link: <https://github.com/technoplato/BeautyTime>
- Technologies: React Native, Expo, Redux, Redux Saga, TypeScript, Firebase, Git

2017 – 2017

Cookies By Us

E-commerce platform

- Platform connecting custom bakers with clients, featuring private chat and order customization.
- Developed a platform connecting custom bakers with clients.
- Enabled private chat, order customization, real-time database operations, and multimedia content storage.
- Technologies: React Native, Node.js, Firebase

TV Portal

May 2012 – September 2016

Top-charting Android application with 2M+ downloads

- Top-charting Android app with over 2M downloads, 27,000+ social followers, and nearly 100 GitHub stars.
- Managed \$40K+ in earnings and 27,000+ social media followers.
- Achieved 4.5+ rating with 4,300+ reviews.
- Open-sourced with nearly 100 GitHub stars.
- Link: <https://github.com/tvportal/android>
- Technologies: Android, Play Store, Third Party App Store Management

GPT Custom Server

2024 – 2024

AI development tool

- Early local AI tooling that enabled ChatGPT-style workflows to interact with a local filesystem and run tests.
- Pioneered early AI tooling by creating a server enabling ChatGPT to interact with local filesystem and run tests.
- Implemented tunneling with ngrok for local development access and Docker containerization.
- Technologies: TypeScript, Express, Docker, ngrok, Bun, Jest, Bash

Organic Software

2023 – Present

iOS development tool

- SwiftUI and TCA application for real-time speech transcription, LLM processing, code modifications, and PR generation.
- Created iOS SwiftUI application utilizing The Composable Architecture.
- Implemented real-time speech transcription with on-device processing.
- Built LLM processing pipeline for code modifications and PR generation.

- Technologies: SwiftUI, The Composable Architecture, OpenAI APIs, WebSockets, Apple Speech Framework

Android Open Source Benchmark Suite

2015 – 2016

IEEE publication and Android benchmark work

- Modified open source Android applications for a deterministic mobile benchmark suite connected to an IEEE publication.
- Modified open source Android applications for a benchmark suite.
- Contributed to a deterministic testing framework.
- Link: <https://ieeexplore.ieee.org/document/7482089>
- Technologies: Android, Java

EDUCATION

Florida State University

2011 – 2015

B.S. in Computer Science, Computer Science

- Minor in Mathematics and Physics
- Focus: Mentoring/Teaching

Udacity

2014 – 2014

Android Development Nanodegree, Android Development

- Android Development Nanodegree

TECHNICAL SKILLS

AI & Agentic Systems

Agentic Engineering, AI-native Architecture, AI Addressability, LLM Integration, LLM Observability, Local Agent Tooling, Skill Creation, Skill Maintenance, Architectural Decision Records

Product & Architecture

Communication-minded Engineering, North Star Alignment, Clean Architecture, Business Logic Outside UI, CLI-exercisable Logic, Dependency Injection, Dependency Isolation, Modular Architecture, Cross-team Collaboration

Programming Languages & Core Technologies

TypeScript, JavaScript, Python, Swift, Java, Kotlin, Objective-C, Rust, Node.js, Bun, GraphQL, REST, Neo4j, Docker, RxJS, zod

Frontend Development

React, React Native, Next.js, SwiftUI, XState, Redux, Redux Saga, React Query, Jest, React Testing Library, React Native Testing Library, Cypress, Percy, Chromatic, Rollup, Webpack, Storybook, Figma, React Navigation, Apollo GraphQL

Mobile Development

React Native, Expo, Swift, SwiftUI, The Composable Architecture, Android SDK, Google Play Store, Apple App Store, Android TV, Brightcove SDK

Backend & Infrastructure

GraphQL Schema Design, REST API Design, Firebase, Firebase AppCheck, Neo4j, AWS, GitHub Actions, CI/CD, Git, GitHub, JWT, Yarn Workspaces, Unleash, Microservices, Distributed Systems

Web3 & Blockchain

Solana, Ethereum, Solana Pay, Smart Contracts, Anchor, XMTP, Noncustodial Wallets, Smart Contract Wallets, thirdweb, Privy, Passkey, NFTs, Blockchain Integration

AWARDS & RECOGNITION

NoIssue - Winner - XState Orlando Devs 2023 Hackathon (January 2023) - Orlando Developers Meetup & statly.ai. Developed a convenient front-end tool that integrates with GitHub repositories to provide a comprehensive overview of issues from within your web app.

Inaugural Android Developer Career Summit Attendee (November 2015) - Google. Selected by Google from thousands of students through Udacity's Android Developer Nanodegree program. Attended exclusive summit in Mountain View, participated in themed hackathon and networking events.

PUBLICATIONS & TUTORIALS

Firestore Tutorial Series (YouTube, 2018) - Educational content on Firestore development [Link](#)

React Development Series (YouTube, 2019) - Educational content on React development [Link](#)

Swift/SwiftUI Tutorial Series (YouTube, 2020) - Educational content on Swift and SwiftUI development [Link](#)

Android Open Source Benchmark Suite (IEEE, 2016) - Publication connected to deterministic Android benchmark work. [Link](#)