

Alexander Gompper

Senior software engineer, seven years in. Early engineer and then platform tech lead at a Shopify-native e-commerce startup, where I owned the sharpest edges of the product — a JS SDK that loaded on every merchant storefront, a checkout rewrite, the Shopify extension surface, and an early MCP server for our implementation team. Polyglot across TypeScript, Kotlin, Python, and Java, with a reverse-engineering side practice spanning RF, embedded firmware, and web platforms. I'm at my best on hard integration work — payments, checkout, SDKs running on other people's sites — where correctness across systems matters more than any single stack.

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Experience

TryNow, Inc. — Senior Software Engineer / Platform Tech Lead

October 2020 – March 2026 · Remote

Shopify-native try-before-you-buy platform. Joined as an early engineer after starting on the account as a QuarkWorks consultant in 2019. Longest serving employee.

Watched the team grow as engineer #2 to a fully fledged organization of 10+ engineers. Became a mentor to other engineers and a Swiss Army Knife for the business on our toughest challenges.

Shopify SDK — owned the JS bundle loaded on virtually every page of every TryNow merchant's storefront

- Created SDK with React, migrated to a WebComponent architecture; shipped v2.0 with TypeScript strict, Biome, Vitest, and Rollup, coordinating managed deprecations across the live merchant fleet
- Stood up SDK versioning and CDN delivery on CloudFront
- Production hardening over time: rate limiting, exponential backoff on cart conflicts, async semaphore locks on cart mutation

Checkout V1 & V2 — rewrote the checkout app

- Created a third-party checkout app to collect customer payment using iframe + postMessage and Stripe Elements. Maintained the app throughout its useful life.

- Replaced a Redux monolith with a context-provider architecture, multi-step navigation, and a multi-phase loading flow spanning two independently-deployed apps communicating over postMessage
- First-load JS dropped by ~80%

AI / MCP tooling

- Built an MCP server for the implementation team — component guides, selector mappings, SDK reference, debug tools, and self-healing loops via observation submission, guide-update proposals, and theme diffs
- Shipped the Merchant Portal's AI chat (InKeep, streaming)
- Led the company-wide Claude Cowork rollout coming out of our team offsite

Shopify Checkout UI Extensions — built TryNow's extension suite from scratch

- Authorization breakdown, deferred payment auto-add, wallet suppression (Apple/Google/Shop/Cash Pay), discount blocking, address validation
- Shopify UI extensions can't call external APIs at render time, so I bootstrapped state by packing platform data into LZ-compressed cart attributes (later migrated to metafields)

TryLinks — TBYB conversion links for email, ads, and social

- Designed and shipped end-to-end as a new merchant revenue channel: Gate Processor backend (Java/Lambda + DynamoDB), the link management UI, and the SDK-side cart-conversion flow

Installation Processor DSL — declarative Kotlin DSL for merchant onboarding

- Designed a DSL on a new Micronaut service, replacing a tightly-coupled imperative pipeline with composable, testable step-execution patterns
- Cut merchant install time to ~30 seconds

Platform Tech Lead responsibilities

- Release management for SDK, Shopify App, and Theme Extension — rollback decisions, versioning, monitoring
- Primary engineering contact for support, product, and operations; routinely forward-deployed on merchant issues
- Mentor for multiple junior and mid-level engineers. Often present in interviews and hiring decisions.
- Active code reviewer with a strong eye for quality
- Created multiple RFCs for features and entire systems and passed tickets out to others

QuarkWorks, Inc. — Software Engineer

October 2018 – October 2020 · Columbia, MO

Software consultancy. Django backend for Saint Haven; Kotlin feature work on Android for Handshake Corp. Joined the TryNow account in July 2019 and transitioned full-time in 2020.

Technical Skills

Primary: TypeScript, React, Next.js, Node.js **Proficient:** Python, Kotlin, Java, Micronaut
Platforms: Shopify (Apps, Theme Extensions, Checkout UI Extensions, Shopify Functions, Billing, OAuth), Stripe (Issuing, Elements), AWS (Lambda, DynamoDB, SQS, CloudFront, Cognito) **Data & observability:** PostgreSQL, DynamoDB, PostHog, Datadog **AI tooling:** MCP servers, Claude Code, Cowork, Cursor et al.

Selected Projects (github.com/alxgmpr)

lutron-tools — RF reverse-engineering toolkit

Custom STM32H723 firmware (C/FreeRTOS) driving dual radios — CC1101 (433 MHz FSK) and nRF52840 (Thread/802.15.4) — with a TypeScript host CLI over TCP for packet capture, protocol decoding, and command injection against Lutron RadioRA3, Homeworks QSX, and Caseta systems. RF capture via RTL-SDR.

serial-mcp — LLM-over-UART MCP server

MCP server for serial-port communication, giving LLMs a UART to microcontrollers, routers, and embedded devices.

WiZ bulb hacking

Flashed ESP32-C6 smart bulbs with custom ESPHome firmware for local-only Home Assistant control. Reverse-engineered the BP5758D LED driver pinout and channel mapping.

E-commerce automation & anti-bot reverse engineering

Ten checkout automation bots in Python and Node targeting Shopify, Nike, Supreme, Hibbett, Extra Butter, and JimmyJazz — reverse-engineered cart APIs and anti-bot systems (PerimeterX, Cloudflare, reCAPTCHA). Techniques spanned API automation to a "sock-jig" preload-and-swap against Shopify checkouts. Supporting tools: a Cloudflare challenge-token harvester using

headless browsers, a local reCAPTCHA solver experiment, and a Linode-backed mass HTTP/S proxy generator.

Entrepreneurship

Long-running operator on the retail side of sneakers and limited-edition apparel — the business context behind most of the automation work above.

- **eBay store** — active reseller since 2013. Over 1k items sold. \$30k GMV in 2025.
- **Sneaker reselling** — personal arbitrage since high school across Nike SNKRS, Shopify drops, Supreme, and the secondary market; the motivation behind every one of the automation projects above
- **Locus Operandi LLC / Run It Back Como** — co-founded limited-edition and vintage apparel retailer with Bo Scribner

Education

University of Missouri — Columbia

Computer Science · 2015–2019 · Bright Flight Scholar