

Omar Walweel

Software Engineer | Shopify apps, full-stack web, and Flutter mobile, built end to end | Prior: missile guidance in Ada at Boeing

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SUMMARY

I build and ship complete products end to end: three apps on the Shopify App Store, a consumer social app on iOS, Android, and web (React and TypeScript, Flutter, Python/FastAPI on AWS), and a Rust engine that sandboxes user-written games. Before that: missile guidance from MATLAB reference models into production Ada on an embedded RTOS, validated on target hardware.

EXPERIENCE

Founder and Engineer | WeLynk LLC Mar 2025 to present

- Built and shipped three Shopify App Store apps (Cleartill, Days of Cover, StateWise) on a chassis I wrote once: embedded auth and token exchange, HMAC-verified webhooks, the GDPR handlers, billing, background jobs, and email. React Router, Prisma on PostgreSQL, pg-boss; 5,875 automated tests across the three.
- Shipped one social product to iOS, Android, and web: React, TypeScript, and CSS on web, Flutter (Dart) on mobile, Python and FastAPI on AWS through Dockerized CI/CD.
- Raised mutual-keep rate (both users keep the match) from 21% to 43% across three rebuilds of the matching engine, the third learning per user from their own session outcomes.
- Shipped an LLM conversation partner (Gemini API) with agentic tool access to platform messaging APIs.
- Carried production on-call against self-built observability, structured logging, metrics, and alerting that paged me: REST APIs plus real-time WebSocket events over Redis pub/sub, detecting, diagnosing, and shipping fixes in production.
- Shipped a StoreKit 2 and Google Play subscription flow through App Review, rebuilding the purchase screens to Apple's placement rules after a rejection. Backed by a PostgreSQL wallet ledger with row-level locks and idempotency keys that prevent double-spend under concurrent retries.
- Built a Rust engine for in-app games so users could publish their own without me reviewing each one: untrusted scripts run in an embedded VM with hard memory and CPU budgets, reaching outside only through granted APIs, served by a TypeScript game runtime on Node.js.

Software Engineer | Boeing Defense | Huntsville, AL Jul 2023 to Sep 2025

- Ported a MATLAB reference model into production Ada on an embedded RTOS as one of the primary developers on missile guidance software, integrated into a large legacy codebase without regressing qualified behavior. Built Python tooling to diff Ada output against the reference, and validated the port on unit tests and on target hardware.
- Cut bug localization from days to minutes by building the program's first unit-testing framework; my team and the systems team adopted it on their own.
- Replaced a multi-week documentation process with an internal tool (Python, C#) that runs in about 30 minutes; still in use.

Software Engineer | Raytheon Technologies | Boston, MA Mar 2023 to Jul 2023

- Validated software for a U.S. Navy surface-combatant program against a full ship simulator running on target hardware: chose the test approach per ticket, automated regression in bash through Jenkins, and root caused and documented defects in Jira for the development teams.

Software Engineer Intern | Johns Hopkins Applied Physics Laboratory | Laurel, MD Jun 2022 to Aug 2022

- Extended two U.S. Navy simulation environments (WASP, ADVISER) with live data-feed capability, and built an automated license server for Navy labs.

TECHNICAL SKILLS

Languages	TypeScript, Dart, Python, Rust, Ada, C/C++, C#, SQL
Frontend, Backend, Data, and AI	React, React Router, CSS, Flutter, Python/FastAPI, Node.js, REST, WebSockets, PostgreSQL, Prisma, Redis, LLM Integration, Agentic Tool Use
Shopify	Embedded apps, token exchange, webhooks, GDPR handlers, App Pricing billing, bulk operations, Polaris web components
Release and Infrastructure	App Store and Play Store release, Shopify App Store review, Dockerized CI/CD, AWS, Prometheus, Grafana, Linux, Git, Jenkins, GitLab

EDUCATION

Bachelor of Science, Computer Science | University of Illinois at Chicago (UIC) | GPA 3.75 / 4.0 Dec 2022