

Yuwei Liang

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Summary

Software engineer with **10+ years** shipping production **e-commerce, marketplace, payments, and billing** systems at scale — **backend services, distributed systems**, and full-stack web. Now inside a **1M-line Django OMS/WMS** from 2016, where the hard part is not writing the change but proving it is safe — characterization and golden-master suites, and a mutation-testing harness that verifies the tests can actually catch the defect.

Experience

Cart.com — ShopHouzz Marketplace

Feb 2026 – Present

Software Engineer, Billing & Accounting

Remote

- **Vendor Payouts:** Single-handedly designed, built, and shipped the ShopHouzz vendor payout system end-to-end in a matter of weeks, processing **millions of dollars** in vendor disbursements shortly after launch.
- **Vendor Banking:** Designed the ShopHouzz vendor banking service (AWS Lambda + DynamoDB + Plaid) for onboarding and ACH flows; live in dev as of Apr 2026.
- **Vendor Integration Reliability:** Lead responder for the SPS Commerce EDI pipeline processing **1,000+** files daily across **200+** vendors — diagnosing data, mapping, and reliability issues to keep partner integrations running.
- **Legacy OMS/WMS Ownership:** Sole owner of the inbound-PO ship-complete hold system inside a **1M-line Django OMS/WMS** first committed in 2016 — hold evaluator, FIFO release, per-tenant cap, and all ten migration and test files, no other author. The system tracks **300k+ active bin locations** across **20 warehouses** and **65 tenants**.
- **Test Verification:** Built a **mutation-testing harness** that perturbs production source, runs the suite, and reports whether the defect was actually caught — written after a test that was green, with correct assertions, still failed to detect the bug it existed for. Restores source on every exit path, including SIGTERM.
- **AI Delivery Standards:** After an AI-authored fix passed **6 unit, 15 integration and 4 end-to-end tests** and still shipped a worse defect to UAT, traced it to the colliding collaborator being mocked in all eight tests, and turned the postmortem into a written **red-first** rule now enforced across four agent contracts.

Houzz, Inc. — Marketplace

2018 – Feb 2026

Full Stack Software Engineer

Los Angeles, CA

- **Checkout & Payments:** Re-architected order-creation workflow, cutting API response time by **90%**. Integrated Apple Pay Express Checkout for mobile web, contributing to a **20%+ GMV lift** on that checkout surface.
- **Billing & Accounting:** Built TIN/EIN tax-compliance system integrated with NetSuite, helping **3,000+** partners avoid IRS penalties. Recovered tens of thousands in overpaid sales tax via a comprehensive Avalara API integration.
- **Payment Terms:** Led multi-term payment system that reduced engineering involvement in net-term setup by **80%**; shipped a 2% quick-pay incentive generating meaningful contribution margin.
- **Product Ads:** Diagnosed and fixed a critical Google Ads conversion-tracking bug, improving ROI measurement accuracy by **35%** and unblocking data-driven campaign optimization.
- **Supplier BI:** Led engineering of supplier-insight reporting platform serving **1,000+** active vendors with sales, inventory, and ads analytics.

- Led development of *Mobilecom*, a SaaS mobile-first storefront for IBM WebSphere Commerce; client deployments saw mobile conversion-rate improvements of ~25%.

Projects

Loopii

Mar 2026 – Present

Festival companion app — Coachella 2026

- **Solo-Built & Shipped:** Designed, built, and shipped **Loopii** — a React Native (Expo) iOS app — solo from zero to TestFlight in ~6 weeks, used by a private squad on the ground at Coachella 2026 W2.
- **Claude-Driven UX:** Drove the entire UX system — screens, navigation, day/night theming with 4 colorways, component composition — with Claude as the design partner, iterating on AI-generated design previews before translating to React Native.
- **AI & Release Engineering:** Integrated a Claude-powered in-app FAQ assistant and artist-recommendations engine; automated TestFlight delivery with Fastlane (auto-version bump, build, upload, GitHub release) behind a one-command deploy.

Technical Skills

Languages: Java, Python, JavaScript/TypeScript, PHP, SQL

Backend: REST/GraphQL APIs, microservices, distributed systems, event-driven architectures, query optimization, Node.js

Frontend & Mobile: React, Redux, React Native (Expo), HTML5, CSS3, responsive web

Data & Storage: MySQL, Postgres, Snowflake, Redis, DynamoDB, Elasticsearch, Solr, data pipelines

Cloud, DevOps & Observability: AWS (Lambda, DynamoDB, S3, API Gateway), Firebase (Firestore, Cloud Functions, Auth), Kubernetes, Docker, Terraform, CI/CD, Datadog, Grafana, on-call rotation

Integrations: NetSuite, Avalara/AvaTax, Stripe, Plaid, Apple Pay, Google Ads

AI & Developer Tooling: Claude Code, agentic development workflows, agent contracts and capability guards, LLM-assisted code review, MCP servers

Testing & Legacy Change Safety: characterization testing, golden-master suites, mutation testing, Playwright, pytest, Django test framework

Education

M.S., Software Engineering

University of California, Irvine

2015

B.S., Information Security

Beijing University of Posts and Telecommunications

2013