

谢园 Jacob Xie

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Summary

I ship complete products with AI coding agents: an iOS/web app live on the App Store, and a booking and smart-lock access system built pro bono for a large church. MS in Applied Financial Mathematics (UConn), CFA Level II, and four years of independent quant research on the methods of López de Prado's Advances in Financial Machine Learning.

Projects

Hotari — habit-tracking RPG app 2026.05–present

- First commit in May 2026; live on the App Store as Hotari since Aug 6, 2026, and in mainland China as 萤火轨迹. Solo: product, design, engineering, release.
- Expo (iOS + web), Hono, PostgreSQL; four languages (Simplified/Traditional Chinese, English, Japanese); 788 automated tests (July 2026 run).
- RevenueCat subscriptions (StoreKit + Stripe); webhooks and reconciliation share one sync function with RevenueCat as the single source of truth.

Church venue booking & smart-lock access system (pro bono, in beta) 2026.03–present

- Bookings, approvals, permissions, audit logs and an admin console for ~1,600 volunteer staff (~200 expected regulars).
- Integrated Tuya smart locks: time-limited passcodes issued on approval and revoked on expiry; every unlock traced to the passcode used.
- React 19, Express, Prisma, SQLite; 1,364 server-side tests.

Independent quant research — quantlab futures framework 2022.08–present

- Implemented AFML methods on Nautilus Trader (purged/combinatorial CV, triple-barrier labels, meta-labeling): ~29k lines of code, 2,135 tests.
- Ingested 16 years of CME minute data (2,211 contracts, 164M bars) and fixed three long-history data traps; continuous futures are bit-identical offline and live.
- Cut peak memory of sample-uniqueness weighting from 81.75 GB to 0.10 GB (dense matrix $\rightarrow O(N \log N)$).
- Tested 11 signal families (77 configurations) under pre-registered criteria; none robustly beat a passive long benchmark, so nothing went live.

Experience

Nengxin Investment (能欣投资) — Quant Strategy Researcher 2022.01–2022.07

- Mid/low-frequency strategies on Chinese commodity futures: breakout and box-breakout detection, factor decorrelation, entry/exit and risk overlays.

Pinrun Investment (品润投资) — Research Analyst 2021.04–2021.12

- Solar and EV sector research and valuation; quant stock selection from financial statements; built the research database from scratch; built a human-in-the-loop workflow for traders (custom monitors, trade-idea alerts).

DHL-Sinotrans — Sales Analyst 2018.05–2021.03

- Volume forecasting and customer segmentation; automated CRM data upkeep (from 2 manual hours a day to fully automatic). Outstanding Employee 2019 and GM Recognition Award 2020 (Fujian–Zhejiang region).

Maverick Trading (US, remote) — FX Proprietary Trading Trainee 2017.06–2018.04

- Built my own trading system with risk and position-sizing rules; passed the simulated-account evaluation.

UConn Foundation — Investment Analyst Intern 2016.10–2017.05

- Global equity allocation via ETFs; interest-rate scenario analysis for bond portfolios.

Education & certifications

- MS, Applied Financial Mathematics, UConn (2015–2017); Bachelor's in Finance, Hainan University (2011–2015)
- CFA Level II (2021); MCM Meritorious Winner (2014)

Skills

Full-stack: TypeScript, React, Expo / React Native, Astro, Hono, Express, Prisma, Drizzle, PostgreSQL, SQLite, Docker, WeChat Mini Programs (CloudBase)

Quant & data: Python, pandas, NumPy, Numba, scikit-learn, Nautilus Trader, Databento, IB API

Integrations: RevenueCat, Stripe, Tuya OpenAPI, WeChat, Aliyun SMS, DeepSeek

Way of working: AI coding agents (Claude Code): spec $\rightarrow$ plan $\rightarrow$ incremental implementation $\rightarrow$ tests and review

Languages: Chinese (native), English (professional)