

Allen Zhou, CFA

AI Product Builder | Human-Computer Interaction | Agent Harnesses & Financial Automation

hello@allen-zhou.com | Mandarin native | English fluent

Jarvis: jarvisxyz.framer.website | AutoAPE: autoape.io | GitHub: [realjarvis-dev/jarvis-react-app](https://github.com/realjarvis-dev/jarvis-react-app) | X: agentprompt

PROFILE

Finance-domain operator and AI builder focused on **human-computer interaction**: making complex financial workflows executable through better interfaces, automation, and agent systems. Before LLMs, built automation, analytics, and ML systems across Deutsche Bank, KPMG, Uber, and Ant Group. Since 2023, founded two agent products across different harness paradigms: **AutoAPE** (browser visual automation) and **Jarvis** (OpenAI tool calling for production finance workflows).

DEVELOPER EXPERIENCE FIT

- **Agent harness depth**: Built both browser visual-automation agents and function/tool-calling agents; understands tradeoffs across UI-control loops, tool schemas, streaming UX, reliability, and debugging.
- **Products & sample apps**: Built production AI agent products with auth, state, streaming, tool execution, UI states, tests, docs, onboarding, and failure handling.
- **Agent/API engineering**: OpenAI via Vercel AI SDK, typed tool schemas, custom tool registry, streaming tool execution, generative UI, retrieval/search, model routing, and tool-result rendering.
- **Developer education**: Turn ambiguous model/tool capabilities into setup paths, example prompts, safe defaults, troubleshooting notes, contribution guides, and migration guidance.
- **Finance-domain depth**: CFA charterholder with investment, wealth-management, M&A, and private-banking automation experience; credible builder for high-stakes financial workflows.
- **Full-stack & ML depth**: TypeScript, Next.js, React, Tailwind, Redis/Upstash, Docker, Jest, REST APIs, Python, SQL/Hive, recommender systems, A/B testing, and noisy-label handling.

AGENTIC AI PRODUCTS & PRODUCTION ML SYSTEMS

Stealth Startup / [Jarvis](#)

Founder & CTO

2025 – Present

UAE / Remote

Role focus: Production function/tool-calling agent for reliable, inspectable financial workflows from natural-language intent.

- Built **Jarvis** as a production AI finance agent that turns natural language into financial research, portfolio analysis, wallet insights, transaction preparation, and multi-step user workflows.
- Selected for **INSEAD AI Venture Lab** and **SMU IIE Business Innovations Generator (BIG)**; raised angel funding from **Anurag Arjun**, co-founder of Avail (a Founders Fund-backed company) and former co-founder of Polygon.
- Acquired **500+ users** through organic community building across X/Twitter, Telegram, AMAs, and newsletter-led product education.
- Implemented the agent/runtime layer with OpenAI-backed model configuration, Vercel AI SDK streaming, typed tools, custom tool registry, structured tool results, generative UI artifacts, and per-tool React result components.
- Built developer-facing inspection surfaces around tool outputs, environment selectors, transaction simulation, status cards, failure explanations, and setup docs so complex financial-agent behavior was easier to test and trust.
- Designed production/testnet UX with embedded wallet onboarding, approval/status cards, sign-in gating, chain/environment selectors, explanatory failure states, and debuggable tool outputs across multiple external APIs.

[AutoAPE \(autoape.io\)](#)

Founder & CTO

2023 – 2024

SF / Remote

Role focus: Browser visual-automation agent harness for crypto-native users automating repetitive DeFi and airdrop workflows.

- Built **AutoAPE**, a browser-control agent that used visual browser state, task decomposition, and action verification to automate yield-farming, airdrop, and multi-step DeFi workflows across web apps.
- Designed a computer-vision-style agent harness around observe-plan-act-verify loops: screen/DOM context capture, UI element targeting, action execution, wallet/transaction checkpoints, retry logic, and human-in-the-loop overrides.
- Created reusable strategy templates and workflow primitives for wallet setup, protocol navigation, deposit/claim/bridge actions, status monitoring, failure recovery, and risk-aware stopping conditions.
- Built run logs, replayable automation paths, and safety checkpoints so users could inspect browser-agent behavior before/after capital-moving steps.
- Selected for **Berkeley Blockchain Xcelerator 2024 cohort** (10 spots from 100+ applications); generated investment interest from leading Web3 ecosystem players including **OKX** and **Alliance DAO**.

Ant Group
Algorithm Expert, User Growth

Dec 2018 – Apr 2023
Hangzhou, China

Role focus: Built large-scale ML and early HCI-style discovery systems for Alipay payment, merchant, and wealth workflows.

- Contributed to experiments for a unified natural-language interface in Alipay, abstracting mini-program/service entry points into intent understanding, service retrieval, ranking, and conversational task routing ([public Ant LLMPA paper](#)).
- Implemented and deployed a multi-class ML classification system to identify 100M merchants without manual user input; addressed sample imbalance and label noise with augmentation/ensembles and expanded merchant coverage by 20M at 0.76 F1.
- Led 5 engineers building the core recommendation algorithm for Alipay Double-12; improved online learning, feature-store decoupling, PU-loss customization, and embeddings, and contributed to experiments around massive-scale personalized promotion ([public paper](#)), driving 10M incremental users.
- Designed a transfer-learning recommendation algorithm incorporating user behavioral bias and price sensitivity; increased wealth-management product revenue by 5% and customer retention by 10%.
- Initiated merchant signup-flow revamp that cut average signup time by 20%, reduced data-error rate by 30%, and increased NPS by 5 points; partnered across algorithm, engineering, product, and business teams on ablation experiments and metrics.

Uber Technologies
Data & Analytics Manager, Growth

Oct 2016 – Dec 2018
Singapore / SF Collaboration

Role focus: Built ML/analytics systems for growth, experimentation, CRM optimization, and app-experience measurement.

- Built production ML models over roughly 50M user behavior records to predict cross-sell probabilities; achieved 0.81 AUC on imbalanced data and increased conversion by 40%.
- Built RNN/LSTM time-series models to estimate counterfactual trip baselines for campaign measurement; work aligned with Uber's neural-network forecasting direction ([Uber Engineering](#)), with ETL/model tables across Hive/Hadoop.
- Led regional measurement for a rider app revamp with US product teams, combining user performance, app-experience metrics, treatment/control analysis, and executive reporting.
- Developed Python/REST API data collection and competitive-intelligence pipelines; researched user lifetime-value assumptions and validated cohort-level accuracy with MAE/MAPE.

FINANCE, INVESTMENT & AUTOMATION FOUNDATION

KPMG Corporate Finance
Senior Financial Data Analyst, Mergers & Acquisitions

Mar 2015 – Oct 2016
Singapore

Role focus: Applied data automation, statistical analysis, and financial modeling to M&A valuation and investor materials.

- Built DCF scenarios, comparable-transaction analyses, and pitch materials for software, natural gas, and flavor/fragrance transactions, translating diligence findings into valuation assumptions and investor narratives.
- Automated valuation workflows with a VBA-based DCF model connected to third-party accounting and market-data APIs, improving repeatability of model refreshes and scenario updates.
- Applied correlation/regression analysis to model relationships between commodity prices and target-company revenue, converting statistical findings into downside/base/upside revenue scenarios.

Deutsche Bank AG
Data Analyst, Private Wealth Management

Apr 2012 – Feb 2015
Singapore

Role focus: Automated private-wealth and derivatives-reporting workflows before the LLM era; top 5% performer.

- Led workflow design, requirements gathering, stakeholder alignment, and UAT for a Java-based derivatives regulatory reporting portal within a private-wealth transformation program.
- Built a derivatives analytics reporting automation solution connecting multiple internal data sources and visualization outputs, reducing manual reporting time by **90%**.
- Worked across operations, technology, and risk stakeholders on target operating model design, service-delivery risk, data-security concerns, and business-process reengineering.

RL Capital Management
Research Analyst

May 2011 – Dec 2011
Singapore

Role focus: Automated equity research models and market-data refresh workflows.

- Built DCF, ROIC, sensitivity, and comparable-company models for equity research; automated Bloomberg-linked stock/index refresh workflows for portfolio monitoring.

EDUCATION & CREDENTIALS

- **Stanford University** – Machine Learning Online Course, 98% grade.
- **Singapore Management University** – M.S. Applied Finance, GPA 3.9/4.0, Top 1%.
- **CFA Institute** – CFA Charterholder; three exam levels, 4,000-hour work-experience requirement, and 10-year average pass rates of 41% / 45% / 52% for Levels I / II / III.
- **Northwest University of Politics & Law** – B.A. Business Law, GPA 3.8/4.0, Top 2%.