

LEVI (CHENGHAO) XIA

(347) 818-8801 | levixia.application@gmail.com | [LinkedIn](#) | [GitHub](#)

EDUCATION

University of Southern California (MS in Computer Science), Los Angeles

Aug. 2023 – Dec. 2025

University of Nottingham (BEng in Engineering), Nottingham, UK

Sept. 2019 – Jul. 2023

WORK EXPERIENCE

Fullstack Software Engineer | Magic Custom Inc., Queens, New York

Aug. 2025 – Present

- Enabled real-time tracking of ~1K SKUs across 4 warehouses by architecting an event-driven inventory engine, ensuring 100% auditability and safe concurrent updates via an immutable movement-event model.
- Reduced stock reconciliation time by 45% by implementing a barcode-integrated dashboard optimized with composite B-tree indexing and denormalized views to resolve high-concurrency query contention.
- Improved restock predictability by 18% by developing a supplier management module that utilized reorder-point and safety-stock algorithms to balance demand variability against warehouse capacity constraints.

Founding Frontend Engineer | Mirastrom Inc., New York, New York

Jul. 2025 - Present

- Boosted session duration by ~15% by designing a recommendation engine that ranks photographers and models using engagement signals and internal scoring systems to improve discovery relevance.
- Cut average image load times by ~40% by implementing a CDN media delivery solution with location-based prefetching and AI-driven style recommendations to optimize the user experience.
- Eliminated booking conflicts by engineering a real-time availability synchronization engine using WebSockets, ensuring sub-100ms state consistency across concurrent sessions.

Software Developer Intern | Bright Start Ed-Tech Inc, Chino Hills, California

Mar. 2025 – Aug. 2025

- Improved daily active user (DAU) re-engagement by 20% by architecting a personalized engagement engine with deep linking and Firebase push notifications for streak tracking and lesson reminders.
- Reduced moderation effort by 30% and page load times by 38% by automating CMS workflows and spearheading the end-to-end iOS deployment and App Store submission process for a React Native application.

Software Engineer Intern | Missfresh Ltd., Beijing, China

May 2021 – Aug. 2021

- Reduced notification latency by 64% (5s to 1.8s) and achieved 95% on-time delivery updates by optimizing a high-throughput pipeline using WebSockets and Redis Streams.
- Streamlined fulfillment monitoring for 53,000 daily orders by deploying real-time Vue.js dashboards for 200+ operations staff, significantly reducing delivery errors during peak traffic periods.

SELECTED PROJECTS

Autonomous Multi-Agent Quant Trading & Risk Orchestrator: AI Prediction Market System

- Minimized end-to-end signal latency to <250ms by architecting an event-driven ingestion engine using Redis Streams to synthesize Sportradar TCP feeds with live market odd-swings, enabling arbitrage identification before mainstream play-by-play updates.
- Architected a multi-agent "Strategy Filter" using LangGraph to manage stateful, asynchronous workflows between specialized "Injury" and "Integrity" agents, utilizing Chain-of-Thought (CoT) reasoning to dynamically adjust position sizing based on real-time risk signals.
- Optimized high-concurrency data fusion by implementing a low-latency event pipeline that correlates asynchronous market movements with live game data using PostgreSQL denormalized views for sub-millisecond query performance on predictive signals.

Neural Interior Designer: Real-Time Dynamic Relighting Engine

- Architected a dynamic neural relighting engine by decoupling albedo, surface normals, and lighting within a Gaussian Splatting framework, allowing for real-time manipulation of light sources without re-training the scene.
- Simulated physically accurate time-of-day transitions by implementing Environment Map Importance Sampling and Spherical Harmonics to dynamically update global illumination, shadows, and color temperature from 2500K to 6500K.
- Solved cross-room light leakage by engineering a Semantic Occlusion Field that enforces 3D geometric constraints on light propagation, preventing light "bleeding" through walls in multi-room reconstructions

SKILLS

Languages: Python, C++, TypeScript, JavaScript (ES6+), Swift, Java, SQL.

AI & CG: LLM Agents, RAG, LangGraph, Chain-of-Thought (CoT), PyTorch, Reinforcement Learning, Gaussian Splatting, NeRF
Frontend: React Native, React, Vue.js, Redux, TailwindCSS.

Backend: Node.js, Express, WebSockets, PostgreSQL, MySQL, Redis Streams, AWS (Lambda, S3, EC2), GCP, MongoDB