Xinghan Yan

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EDUCATION

University of Southern California **Aug 2025 – May 2027**
Master of Science in Computer Science – Game Development *Los Angeles, CA*

Northeastern University **Sep 2021 – May 2025**
Bachelor of Science in Computer Science ***GPA: 3.61/4.0*** *Boston, MA*

TECHNICAL SKILLS

Languages: Java, Python, JavaScript/TypeScript, C/C++/C#, SQL, HTML/CSS
Frameworks & Libraries: Spring Boot, React, Node.js, Express, Flask, Jest, Apollo, WebSocket, gRPC
Data & Storage: MongoDB, MySQL, Redis, Kafka, Flink, Vector DBs
Machine Learning/AI: PyTorch, TensorFlow, DeepFM, DSSM, PPO, DDPG, TD3, Contextual Bandits
Cloud & DevOps: Docker, Kubernetes, AWS, CI/CD, Monitoring/Logging
Tools: Git, Jira, Postman, Figma, Unix/Linux Shell, LaTeX

WORKING EXPERIENCE

OAG Technology — Digital Marketing **May 2025 - October 2025**
Data Scientist Intern - Smart Bidding *New York, New York*

- Built an industrial-grade RTB engine with Flink/Kafka/Redis + feature store, sustaining 10W+ QPS and 20–50ms E2E latency, enabling true real-time bidding at scale.
- Engineered real-time feature pipelines for user embeddings (DeepFM/DSSM) and CTR/CVR feedback, achieving sub-50ms feature computation before impression auction.
- Designed bid strategy models combining CTR/CVR estimation with bid landscape modeling and eCPM calculation, enabling fine-grained market-aware bidding.
- Designed RL-driven bidding strategies: Contextual Bandits (LinUCB, NeuralUCB) for cold-start users and deep RL (PPO, DDPG, TD3) for adaptive budget pacing and frequency control.
- Implemented budget optimization via constrained RL and multi-agent coordination, dynamically reallocating spend and cutting budget burn-out by 35% across campaigns, achieved 18.5% ROI uplift, 10% lower budget consumption at equal GMV, and +12% CTR lift on cold-start users in live serving environments.

Li Auto **July 2023 – December 2023**
Application System Development Engineer *Beijing, China*

- Led a major backend code refactoring initiative in Java and Spring Boot, restructuring the business logic layer into clear controller, service, and repository components. Introduced type-safe models and idempotent upsert logic, which reduced data misclassification incidents by **40%** and improved platform efficiency by **25%**.
- Designed and implemented REST API ingestion for nationwide competitor sales data, including input validation, retry policies, and batch upserts into MySQL. Enhanced schema with normalization and composite indexes, supported by structured logging and monitoring, which sustained **99.9%** accuracy and improved uptime from **95% to 99.5%**.

PROJECTS

HuskyFlow | TypeScript, Node.js, MongoDB, OpenAI, WebSockets **April 2025**

- Developed full-stack Q&A with React/Node/Express/MongoDB, JWT authentication, RBAC, and real-time chat using WebSockets
- Integrated OpenAI API via backend orchestration with request shaping, moderation, and load management for scalable AI answers.
- Implemented Semantic Search and Personalized Recommendations via OpenAI's text-embedding-ada-002 and cosine similarity for enhanced content discovery, structured for vector DB and RAG-ready retrieval.

Kambaz LMS + Piazza Q&A Platform | React, TypeScript, Node.js, MongoDB **March 2025**

- Built a full-stack LMS with course/module/assignment management and role-based permissions.
- Integrated a Piazza-style Q&A forum with threaded discussions and visibility controls.

Custom Reliable Transport Protocol | Python, UDP, Sockets **Oct 2024**

- Implemented reliable UDP protocol with sliding window, retransmission, and ACK/dup suppression for in-order delivery
- Engineered sender/receiver with raw sockets; stress-tested under packet loss, duplication, reordering, and delay.
- Tuned timeout and window size for throughput, validated with telemetry; achieved lowest bytes sent and 2nd fastest runtime.