

Colin Xie

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EXPERIENCE

Millennium Management | \$92B AUM

January 2024 - Present

Quantitative Developer, Systematic Data Platform

New York, NY

- **Podcast Intelligence:** Lead an end-to-end AI podcast intelligence platform for fundamental Portfolio Managers across **250+ curated RSS feeds**, iterating directly from Portfolio Manager feedback. Use GPT-4o-transcribe for transcription and diarization, and TitaNet embeddings for speaker clustering and suggestions; extract company/key-figure data from transcripts and deliver structured data within **~1 hour of publication**, replacing an external vendor workflow that delivered in 24-48 hours and saving **~\$250K annually**. Built a Django labeling workflow for analyst/intern speaker labeling.
- **Data MCP Servers:** Lead and own two MCP platforms end-to-end: a Data Wiki MCP for systematic discovery across **5,000+ internal datasets**, and a query MCP over a curated subset of **~500 query-ready datasets** backed by Python REST APIs. Adopted by **Fundamental Portfolio Managers, senior management, and internal AI teams**.
- **On Call Agent:** Project lead for a human-in-the-loop agent supporting the entire Systematic Data Platform desk; helps resolve **~80% of support cases**, reducing **hour-long investigations to minutes**. Built a plugin evaluation framework covering **regression testing** for plugin updates and **capability testing** on multi-stage research support tickets.
- **Backtester:** Built and architected a firm-wide open-source-style backtester (Python, Pandas 2), adopted by **multiple Quant Strats Pods** for systematic research and strategy prototyping; took a Senior Portfolio Manager's **\$1B AUM pod live**. Built Pylceberg/Airflow pipelines to aggregate, normalize, and validate backtester-ready datasets including market calendars, corporate actions, intraday/close prices, and volumes across country-specific schedules; built an **integration-testing framework** and test suites, Jenkins CI/CD for automated deployments, and automated Confluence release syncs.
- **LEaD Program:** Selected for Millennium's 2024 LEaD rotational program (**~0.1% acceptance rate**).

Tempus AI | IPO 2024

March 2021 - December 2023

Full Stack Software Engineer, Tempus LENS

New York, NY

- Engineered a patient cohort delivery pipeline with precomputed patient tables, reducing query latency by **90%** for Tempus LENS, a research platform used by oncologists.
- Developed a global trigram-search microservice with weighted ranking, enabling sub-millisecond filtering across **1.6M+ molecular concepts**.
- Scaled Tempus LENS from **300K to 6M patient rows** with Django REST services and optimized BigQuery nested/repeated fields; built DORA tooling improving CI/CD throughput by **25%**.

LEADERSHIP & MENTORING

University of Chicago, Financial Mathematics

October 2024 - Present

Project Lab Advisor

Remote

- **Program Leadership:** Dedicate ~10 hours/week to student project delivery; run standups, planning sessions, retrospectives, and 1:1s, provide ongoing technical/project feedback, and maintain regular communication with UChicago Financial Mathematics program directors.
- **Mentoring Outcomes:** Mentored 16 students across three Low Tide Capital Management cohorts on macro-shock analysis and portfolio construction for a \$60M AUM global macro Portfolio Manager, and guided 6 Albatross Labs students in building a Bitcoin pricing engine; **2 students received return offers**.

SELECTED PROJECTS & RESEARCH

Color Tap | Hyper-Casual Mobile Game, Creator & Engineer | [cxie.dev/color-tap](#)

August 2026 - Present

A hyper-casual iOS game centered on rapid color matching, with Classic, Survival, and Rush modes plus progression, boosts, and leaderboards. I built and released the product end-to-end, designing gameplay architecture, graphics, music, QA, and UX, and created autonomous gameplay agents that run full sessions, probe scoring/progression edge cases, and generate playtest data for balancing.

The Silk Club | DTC Consumer Brand, Co-Founder | [silkclubofficial.com](#)

March 2025 - Present

A direct-to-consumer silk sleep-mask brand designed for customers who need a larger fit. As Co-Founder, I engineered and prototyped a new larger-fit mask design, built the site, sourced and imported inventory, managed fulfillment and **\$15K+ in revenue**, and automated Meta/Facebook ads plus reusable AI skills for ad and social-post copy.

Automated Content Pipelines | Channel Owner, Creator & Engineer

January 2026 - Present

Automated content systems for two daily math Shorts channels and Roblox creator BananaTheBot. As channel owner, creator, and engineer, I built MoviePy/OpenAI pipelines for problem solving and narration, GPT image generation, ElevenLabs voice-over, video assembly, and publishing; grew the math channels to **1K+ total subscribers, 300K+ views, and 1,500+ watch hours**, while contributing to BananaTheBot's **10.8K+ subscribers and 2M+ views**.

Generalized Interatomic Two-Body Potential-Energy Function | First Author & Researcher

January 2012 - May 2015

Research project developing a universal four-parameter interatomic potential-energy function with **3% relative error**. I was first author on four peer-reviewed papers in Chemical Physics Letters and Journal of Nanoscience and Nanotechnology. **Awards:** Intel STS National Semifinalist (2015), Siemens Regional Finalist (2014), Sigma Xi SRS National Chemistry Champion (2014), and Sigma Xi member.

EDUCATION

University of Chicago — M.S. Computer Science, Artificial Intelligence - Foundations Specialization

Chicago, IL | Dec 2020

University of Texas at Austin — B.S. Mathematics; Minors: Computer Science & Business

Austin, TX | May 2019

TECHNICAL SKILLS

Programming: Python, SQL, C++, JavaScript, Java

AI Stack: OpenAI / Claude / Grok APIs, Codex, Claude Code & Skills/Plugins, Roo Code, FastMCP, Ponytail, RAG, GPT-4o-transcribe, TitaNet

Data / Backend: Pandas 2, NumPy, PyArrow, Pylceberg, Django, REST APIs, Airflow, PostgreSQL, BigQuery

Cloud / Infrastructure: AWS, GCP, Firebase, Nomad, Kubernetes, Jenkins, Concourse, Grafana, Git

Languages: English, Mandarin, French (basic)

Interests: Table tennis (2024 PingPod coach), Speedcubing (14s 3x3, 3:50 BLD), OSRS (13 99s), Cardistry