

# Haoming Luan

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## SUMMARY

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Business Operations & AI Automation Analyst with experience spanning private equity operations, financial services analytics, and cross-border e-commerce. Builds Python-based data pipelines and AI-assisted process controls that reduce manual work, consolidate cross-departmental data, and improve operational decision quality. Columbia ERM background provides a strong foundation in operations management frameworks, compliance, and control design — enabling AI adoption that is auditable, human-validated, and scalable.

## WORK EXPERIENCE

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### Terracotta Management

#### Real Estate Private Equity Intern

New York, NY  
May 2025 – Aug 2025

- Conducted AI-assisted contract review and lease clause extraction across a commercial real estate portfolio, integrating risk-flag identification into the due diligence workflow and cutting per-asset ODD review time by ~50%.
- Automated scenario data pipelines for DCF stress-testing models across a \$100M private equity portfolio in Argus and Excel, reducing interest-rate shock analysis turnaround from hours to minutes.
- Synthesized weekly market intelligence from CoStar and RCA data into structured risk summaries for investment committee — translating raw market signals into actionable decision inputs.

### Shenzhen Xiaoya Apparel

#### Co-Founder & Operations Manager

Shenzhen, China  
Jun 2019 – Jun 2021

- Designed and implemented end-to-end warehouse operations controls across a 200+ SKU inventory; introduced QC checkpoints and root-cause review protocols that reduced fulfillment error rates by 84%.
- Built fulfillment tracking systems and cross-functional process documentation from scratch, enabling consistent execution through seasonal volume spikes without headcount growth.

## AI / AUTOMATION PROJECTS

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### Operational Data Pipeline & AI Governance Framework

- Consolidated cross-departmental order, inventory, logistics, and financial data into automated Python pipelines, improving business operations efficiency by eliminating 70% of manual handling time and cutting bottleneck identification from days to hours.
- Authored company-wide AI usage policy covering Human-in-the-Loop validation, hallucination controls, and data-privacy safeguards; adopted across all departments for compliance sensitive workflows.
- Standardized 3 cross departmental SOPs using AI-assisted documentation tools, producing auditable process records that reduced onboarding friction and enabled repeatable execution.

### AI-assisted Contract Review & CRE Due Diligence Automation | Terracotta Management

- Scoped and deployed an AI document review pipeline for commercial lease contract analysis, integrating clause extraction and risk-flag logic with analyst validation checkpoints — reducing manual ODD review time by ~50% across a live deal pipeline.

### What We Gonna Eat — Full-stack Real-time App | luanhaoming.com/eat

- Designed and shipped a multi-user real-time decision app (Node.js, PostgreSQL, Flask) from end-to-end — demonstrating cross-functional product thinking, system design, and independent delivery to a live environment.

### Freelance: Production Web Platform & Multiplayer Apps | luanhaoming.com

- Delivered a production e-commerce platform and multiple live multiplayer web apps, end-to-end ownership from scoping through deployment, with real users in live environments.

## RISK & ANALYTICS PROJECTS (GRADUATE CONSULTING, COLUMBIA UNIVERSITY)

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### Bumble Inc. — ERM Framework Redesign

- Applied Monte Carlo simulations to quantify KRI volatility across Human Capital and Cybersecurity domains; scenario analysis identified a 41% vs. 60% Board-tolerance gap and informed a prioritized mitigation roadmap.
- Stress-tested mitigation options and optimized the risk portfolio, raising the modeled Joint Probability of Success (JPoS) from 41% to 62.3%.

### Mortgage Product Line — Vendor Management & Risk Mapping | OCC / FFIEC

- Managed vendor evaluation and procurement risk controls across 20+ vendors in a mortgage product lifecycle; built a Vendor Criticality Scoring Model aligned with OCC Bulletin 2013-29 and FFIEC guidelines, and designed control frameworks targeting GLBA and Business Continuity exposures.

### Hitachi Global — ESG Risk Integration

- Integrated ESG KRIs and risk appetite thresholds into corporate risk register through materiality assessment; proposed Board-level governance structure for DEI accountability.

## EDUCATION

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### Columbia University

#### **M.S. in Enterprise Risk Management (ERM)**

New York, NY

Dec 2025

*Relevant: IT Risk Management, Cybersecurity Risk, AI & Emerging Tech Risk, Strategic Risk Modeling*

### University of California, San Diego (UCSD)

#### **B.A. in Sociology**

La Jolla, CA

May 2024

*Focus: Organizational Behavior, Business Operations Analytics, Research Methodology & Social Data Analysis*

## SKILLS

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**Automation & Data:** Python (Pandas, scripting) · SQL · Advanced Excel (VBA/Macros) · Microsoft Office 365 · Tableau · Power BI

**AI & Governance:** AI Usage Policy · Human-in-the-Loop Validation · Hallucination Controls · AI Governance · Prompt Engineering

**Operations:** Workflow Automation · Process Optimization · Cross-functional Communication · Vendor Management · SOP Design · Process Documentation

**Risk & Compliance:** ERM (COSO, ISO 31000) · TPRM · OCC/FFIEC · GDPR · GLBA · RCSA · KRI · Monte Carlo Simulation · DCF Modeling · Scenario Analysis

**Technical:** Python · Node.js · Flask · PostgreSQL · REST APIs · Docker · Git/GitHub · Ubuntu/Linux

**Platforms:** Argus · CoStar · RSA Archer · ServiceNow · Supabase

**Languages:** English · Mandarin Chinese (Native)