

# KE NUOYUAN

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Research interests: information systems, digital platforms, textual analytics, AI-enabled information systems, and empirical business research

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## EDUCATION

### City University of Hong Kong, Hong Kong

M.S. in Business and Data Analytics, Aug 2025-Present

Current GPA: 3.7

### Maastricht University, School of Business and Economics, Maastricht, Netherlands

Selected for Exchange Study, Fall 2026

### Southern University of Science and Technology, Shenzhen, China

B.S. in Big Data Management and Application, Aug 2021-Jul 2025

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## RESEARCH PROJECTS AND WRITING SAMPLES

### The Impact of Forward-Looking Disclosures on Corporate Credit Ratings: Risk Sentiment and Disclosure Complexity

Working Paper; intended writing sample for PhD applications

Guided by Prof. Raymond Y.K. Lau

- Motivated by the idea that annual reports may contain subtle, hard-to-verify signals about firms' future risks, especially in forward-looking statements where managers discuss expectations, uncertainties, and potential adverse conditions.
- Addresses a research gap in how such forward-looking disclosures enter credit assessment by distinguishing the semantic content of disclosure from its information-processing cost.
- Develops a two-channel framework: a content channel measuring risk sentiment with FinBERT and a clarity channel measuring disclosure complexity with Flesch-Kincaid readability.
- Constructs a firm-year panel of 1,730 S&P 500 non-financial observations from 2010 to 2020 by combining WRDS Capital IQ credit ratings, Compustat financial controls, SEC 10-K MD&A text, and market risk variables.
- Finds that disclosure complexity is more consistently associated with credit ratings in the full sample, while FinBERT-based risk sentiment is more salient among larger firms, suggesting that rating-relevant textual signals depend on firms' information environments.

### Exclusivity and First-Party Strategies: Regional Insights into Video Game Platforms

Undergraduate Thesis, Southern University of Science and Technology; Advisor: Prof. Xu Ting, 2025

- Motivated by a gap in platform-strategy research that often treats exclusivity as a universal competitive advantage, while overlooking regional differences in consumer switching costs, platform loyalty, and content preferences.
- Examines how platform exclusivity and first-party strategies affect video game sales across North America, Europe, Japan, and other markets.
- Constructs a dataset of 16,598 video game titles released from 1980 to 2020 across 31 platforms and uses a balanced analytical sample of 6,832 titles with comparable regional sales records.
- Estimates OLS models on log-transformed regional sales with controls for critic score, user score, genre, platform, and release year; conducts robustness checks using alternative sales specifications, winsorization, clustered standard errors, and additional controls.
- Finds substantial regional heterogeneity: exclusivity is associated with lower sales in Western markets but a marginally positive effect in Japan, while first-party strategies show consistently positive but regionally distinct effects.

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## RESEARCH EXPERIENCE

### IS6914 Information Analytics Management Project, City University of Hong Kong

Course-Based Research Project, 2025-2026; Guided by Prof. Raymond Y.K. Lau

- Participated in faculty-guided research discussions across two semesters, receiving feedback on research design, empirical framing, and academic writing.
- Presented research progress and incorporated feedback on hypothesis framing, model specification, and interpretation of empirical results.
- Engaged with PhD-level research presentations and discussed how research questions were translated into empirical designs.
- Refined the project toward a writing sample for PhD applications.

### Research Project Group, Prof. Xu Ting, Southern University of Science and Technology

Independent Researcher, 2023-2025

- Conducted literature review on platform competition, two-sided markets, exclusivity, vertical integration, and regional market heterogeneity.
- Developed hypotheses connecting unit misfit costs, consumer multi-homing, platform loyalty, and regional strategy performance.
- Processed structured sales data, constructed empirical variables, and interpreted regression results for an undergraduate thesis on digital platform strategy.
- Participated in research group meetings with master's and PhD students, gaining exposure to graduate-level presentation structure, empirical research design, and academic critique.

## SELECTED TECHNICAL PROJECTS

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### AI-Assisted Research Literature Monitoring and Extraction System

Personal Project

- Built an automated pipeline for tracking research papers and field-relevant updates from RSS and online sources, combining Python-based pre-filtering, LLM-assisted screening, and structured HTML output.
- Designed topic-based filtering and source-prioritization rules to identify papers and updates related to information systems, digital platforms, AI, and business analytics.
- Used LLM prompts to extract and summarize key paper-level information, including research question, methods, data, findings, and relevance to information systems, digital platforms, and AI-related research.
- Generated structured research notes for paper screening, literature tracking, and follow-up reading prioritization.

### LLM-Based Equity Research Assistant

Independent Technical Project

- Built a prototype conversational agent for equity research support using retrieval-augmented generation, combining financial news, company annual reports, and public filings.
- Integrated multiple information sources, including financial news, company reports, public filings, and market-related indicators, to support source-grounded equity research queries.
- Designed query-routing prompts for company lookup, event extraction, risk summarization, and comparative stock screening, returning evidence-based research notes rather than unsupported recommendations.
- Generated structured outputs including evidence-based opportunity and risk summaries, key source excerpts, and follow-up questions for further analysis.

## PROFESSIONAL EXPERIENCE

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### Beijing AskHelpU Medical Technology Co., Ltd.

Technology Assistant, Jun 2025-Aug 2025

- Developed Python-based tool modules for an enterprise LLM agent, supporting API calls, structured data retrieval, and workflow execution.
- Helped construct a patient genetic database from heterogeneous data sources and supported visualization dashboards for preliminary research analysis.

### Myguide Securities Co., Ltd.

Research Assistant Intern, Research and Development Department, Jun 2024-Aug 2024

- Contributed data analysis and visualization sections to two ETF research reports.
- Maintained a database of 50+ industry companies and summarized 10+ expert teleconferences.

### Johnson & Johnson Medical (Suzhou) Limited

Data Operations Intern, Dec 2023-Feb 2024

- Cleaned and summarized market and user operation data to support product and strategy teams.

## LEADERSHIP AND SERVICE

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### Student News Agency, Southern University of Science and Technology

President, 2022-2024

- Led five departments within a university-level student media organization under the guidance of the university publicity office.
- Organized recruitment and leadership transition cycles, inter-organization exchange events, and a campus cultural festival with over 1,500 participants.

### 90th Anniversary Celebration of the Chinese Physical Society

Volunteer Leader, 2022

- Coordinated planning, training, and on-site dispatch for 30 volunteers at an event serving over 3,000 participants.

## HONORS AND AWARDS

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- First Prize, "Rixin" Entrepreneurship Training Camp Roadshow, Southern University of Science and Technology
- Excellent Student Journalist
- Excellent Student Cadre

## SKILLS

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**Programming and Data Analysis:** Python, SQL, pandas, NumPy, scikit-learn, statsmodels

**Statistical and Research Software:** Stata, Jupyter Notebook, Git/GitHub

**Data Collection and Text Processing:** SEC filing text extraction, API-based data collection, HTML parsing, RSS-based source monitoring

**Text Analytics and NLP:** FinBERT, financial sentiment analysis, readability analysis, forward-looking statement extraction, LLM-assisted information extraction

**Research Methods:** empirical research design, panel data construction, regression analysis, robustness checks, literature review

**Additional Tools:** JavaScript, Bash, HTML/CSS, Docker, nginx, Cloudflare

**Languages:** Mandarin Chinese, English