NAN LI

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RESEARCH PROFILE

Researcher and engineer working on **LLM reliability and evaluation** (reasoning behavior, value alignment, and cross-lingual robustness), with dual training in **Computer Science (NLP/LLMs)** and **Philosophy/Ethics**. I build **data-driven evaluation protocols** and **LLM-based pipelines** for large-scale text understanding, and I focus on diagnosing failure modes (inconsistency, value drift, and undesirable behaviors) that matter for real deployments. Strong Python background and peer-reviewed publications in EMNLP, CIKM, and top ML/NLP journals.

EDUCATION

Ghent University, Belgium *Dec 2021 – Exp. 2026*
PhD in Computer Science
Research Focus: LLMs, Responsible AI, Fairness in NLP
Advisors: Prof. Tijl De Bie, Prof. Jefrey Lijffijt

Georgia Institute of Technology, USA *Jan 2019 – Dec 2020*
M.S. in Computer Science (GPA: 4.0/4.0)
Specialization: Machine Learning

Wuhan University, China *Sep 2008 – July 2013*
PhD in Philosophy
Dissertation: Phenomenal Concepts and Phenomenal Properties: In Defense of Property Dualism

RESEARCH EXPERIENCE

Ghent University, Belgium Dec 2021 – Present
Doctoral Researcher

· Conducted independent research on **LLM evaluation, robustness, and Responsible AI**, publishing in EMNLP, CIKM, ACM TIST, ACM CSUR, *Knowledge-Based Systems*, and *Machine Learning*.

· **Selected contributions (outcome-focused):**

- **Cross-lingual LLM alignment evaluation:** Built an evaluation protocol for moral judgments across languages and tested **13 LLMs** (English–Chinese), identifying systematic inconsistencies and diagnostic patterns for deployment.
- **Reliability via multi-stage LLM pipelines:** Accomplished structured extraction and standardization of occupations/skills as measured by end-to-end pipeline quality, by designing **multi-stage semantic clustering + LLM extraction** workflows.
- **Data-driven taxonomy induction:** Produced occupation taxonomies from unstructured text for downstream analytics, by combining semantic clustering with role-specialized (agent-like) LLM steps (*EMNLP Industry*).
- **Fairness metrics for scarce resources:** Developed **FEIR** to quantify and reduce competitive disadvantage in recommendations, measured by fairness improvements under limited-resource allocation (*ACM TIST*; paper award).
- **Safety-relevant failure analysis:** Evaluated multi-step LLM systems under distribution shift and ambiguous objectives, documenting reasoning inconsistencies and undesirable behaviors relevant to agentic workflows.

Capital Normal University, China Jan 2019 – Jan 2021
Postdoctoral Researcher, Philosophy of AI

· Published on AI ethics and machine ethics; focused on conceptual foundations relevant to alignment, agency, and responsibility.

Rutgers University, USA Aug 2016 – Aug 2018
Postdoctoral Researcher, Philosophy of Mind and Cognition

· Conducted research on phenomenal consciousness and phenomenal intentionality.

PROFESSIONAL & ENGINEERING EXPERIENCE

Gennlife Co., Ltd Feb 2021 – Oct 2021
AI & Natural Language Processing Engineer

· Built and deployed deep learning models for automated medical coding (ICD-10) and clinical IE; improved production performance by optimizing CNN/LSTM pipelines and data processing.

BusinessBigData Tech Co., Ltd Apr 2019 – Aug 2020
Natural Language Processing Engineer

· Engineered end-to-end NLP pipelines for a large-scale data platform (**100+ web sources**); implemented automated ingestion, processing, and deployment using Docker and Flask.

PUBLICATIONS

Artificial Intelligence & Computer Science (selected)

- **Li, N.**, Kang, B., & De Bie, T. (2025). Human-AI Moral Judgment Congruence on Real-World Scenarios: A Cross-Lingual Analysis. *EMNLP Widening NLP Workshop*.
- **Li, N.**, Kang, B., & De Bie, T. (2025). Building Data-Driven Occupation Taxonomies: A Bottom-Up Multi-Stage Approach via Semantic Clustering and Multi-Agent Collaboration. *EMNLP (Industry Track)*.
- **Li, N.**, Kang, B., & De Bie, T. (2025). Content-Agnostic Moderation for Stance-Neutral Recommendations. *CIKM*.
- **Li, N.**, Kang, B., & De Bie, T. (2025). LLM4Jobs: Unsupervised occupation extraction and standardization leveraging Large Language Models. *Knowledge-Based Systems*.
- **Li, N.**, Kang, B., Lijffijt, J., & De Bie, T. (2024). FEIR: Quantifying and reducing envy and inferiority for fair recommendation of limited resources. *ACM Transactions on Intelligent Systems and Technology*.
- Mashayekhi, Y., **Li, N.**, Kang, B., et al. (2024). A challenge-based survey of e-recruitment recommendation systems. *ACM Computing Surveys*.
- **Li, N.**, Kang, B., & De Bie, T. (2024). Your Next State-of-the-Art Could Come from Another Domain: A Cross-Domain Analysis of Hierarchical Text Classification. *Machine Learning* (accepted). Preprint: arXiv:2412.12744.
- **Li, N.**, Kang, B., & De Bie, T. (2023). SkillGPT: A RESTful API service for skill extraction and standardization using a Large Language Model. *arXiv*.

Philosophy & AI Ethics (selected)

- **Li, N.** (2021). The Source of Machine Ethics. *Studies in Ethics*. (In Chinese).
- **Li, N.** (2021). Is AI smarter than Humans?. *Science, Economy, Society*. (In Chinese).
- **Li, N.** (2020). Phenomenal Intentionality Rejected. *Journal of Human Cognition*.

- **Li, N.** & Liu, S. (2019). Color Constancy and Russellian Intentionalism. *Journal of Yangzhou University*.
- **Li, N.** (2017). Non-Physicalist Causation. *Journal of Dialectics of Nature*. (In Chinese).

AWARDS & GRANTS

- Women in RecSys Journal Paper of the Year Award, 2025.
- The National Social Science Foundation of China Grant, 2016 – 2020.
- China Postdoctoral Science Foundation Grant, 2014 – 2015.

TEACHING & MENTORING

Dalian University of Technology 2013 – 2018
Lecturer (Assistant Professor), Philosophy Department

· Taught undergraduate courses (*Logic*, *Analytic Philosophy*) and a graduate seminar (*Philosophy of Science*).
· Supervised 4 undergraduate graduation theses.

SELECTED SKILLS

Technical	Python, PyTorch, Transformers (HuggingFace), Scikit-learn, Pandas, Docker, Git, REST APIs
Methods	LLM evaluation, robustness analysis, data curation, multi-stage/agentic workflows, fairness metrics

REFERENCES

Available upon request.