

# Nan Peng

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## EDUCATION

### Jinan University

Master in Computational Communication, Advisor: Professor Tingrong Zhi

- Average Score: 91.7/100

Guangzhou, China

Sep 2023 – Jun 2026 (Expected)

### Nanjing Forestry University

Bachelor in Broadcasting and Television

- GPA: 3.82/4.5 Rank: 1/70

Nanjing, China

Sep 2019 – Jun 2023

## PUBLICATIONS

[1] Peng, N., Zhao, T. F., & Zhi, T. R. *Trust Hierarchy in Deepfake Deception: A Grounded Theory Analysis of Global Cases.* *information, communication & society.* Under Review.

[2] Peng, N., & Zhi, T. R. *The Double-Edged Sword of Media Literacy: Reflections on Fraud Susceptibility and Trust Mechanisms Among Older Adults in Deepfake Deception.* *Convergence.* Under Review.

[3] Peng, N., & Zhao, T. F. *Unveiling Risk Evolution Mechanisms Driven by Deepfake Technologies.* *Proceedings of the 12th International Conference on Machine Intelligence Theory and Applications (MiTA 2025), IEEE,* May 2025. <https://doi.org/10.1109/MiTA66017.2025.11100255>.

## RESEARCH EXPERIENCE

### Elderly Fraud Prevention Simulation with Large Language Models (LLMs)

Project Leader

Dec 2024 – Present

- Designed a simulation system integrating LLMs to evaluate elderly susceptibility to deepfake scams.
- Constructed four personas from 48 interviews; extracted dominant scam strategies using SHAP-based feature interactions from media reports.
- Incorporated GPT API to dynamically generate scammer dialogues and victim responses.
- Modeled trust patterns and scam susceptibility across personas under different strategies and interventions.
- Identified differentiated impacts of intervention measures on various elderly groups.

### Multidimensional Feature Analysis and Temporal Forecasting of Deepfake-related Weibo Discussions

Project Leader

Mar 2025 – Jun 2025

- Collected 88,273 Weibo posts (2017–2025) on the topic of “deepfake.”
- Applied time-series analysis, SnowNLP sentiment computation, BERTopic modeling, and Prophet forecasting.
- Identified four evolutionary stages of public discussion and shifts in sentiment from curiosity → panic → rationality → caution; extracted three dominant themes: technology applications, privacy ethics, and scam risks.
- Proposed a replicable “time–sentiment–topic–forecast” framework to support platform alert systems and governance policy.

### Multi-platform Public Opinion Data Collection and Visualization Tool

Co-developer

Oct 2024 – Feb 2025

- Built a one-stop platform to collect posts and comments from major Chinese and international media platforms.
- Developed modules for thematic river visualization, word frequency and word cloud analysis.

### Multidimensional Feature Analysis and User Behavior in Public Health Opinion Formation

Principal Investigator

Dec 2024 – Mar 2025

- Analyzed 154,547 Weibo posts on “H1N1 flu” using a three-dimensional framework (“content–sentiment–user”).
- Conducted semantic network analysis and BERTopic modeling to extract 10 themes with a four-level hierarchy.
- Applied SnowNLP for sentiment quantification and identified amplification effects of KOLs and institutional accounts.
- Provided actionable recommendations for public health crisis communication and opinion monitoring.

### Causes, Media Expressions, Social Network Structures, and Intervention Simulations of Substance Abuse among Chinese Women: Evidence from the Weibo Overdose Community

Project Leader

Aug 2025 – Present

- Conducted in-depth interviews with Chinese female overdose users.
- Implemented semantic and social network analysis of Weibo posts.
- Designed and ran agent-based modeling (ABM) simulations to evaluate intervention strategies.

# **International Communication Capacity Building in Guangdong Province**

Research Assistant

Apr 2025 – Present

- Contributed to cross-platform opinion data scraping, cleaning, analysis, and visualization.
- Covered regions including Guangdong, Beijing–Tianjin–Hebei, and the San Francisco Bay Area.
- Supported evaluation of communication effectiveness and provided strategic recommendations for provincial authorities.

## **Constructive Communication: Governance and Transformation of Online Communities**

Research Assistant

Jun 2021 – Jun 2022

- Focused on sports reporting and aging-friendly communication as two case studies; contributed to two independent publications: one on media gaze in sports and another on digital divide among older adults.

## **China Livelihood Survey 2021**

Field Researcher

Sep 2021 – Oct 2021

- Conducted multiple rounds of pilot testing to optimize questionnaire logic and wording.
- Applied a “ask–explain–probe–record–feedback” loop method in structured interviews during fieldwork.
- Led abnormal data screening and follow-up calls, significantly improving data accuracy.
- Authored a research report based on validated data, which was awarded Third Prize by the Development Research Center of the State Council.

## **WORK EXPERIENCE**

### **Youth Engagement Committee, Special Olympics East Asia**

Member

Aug 2023 – Present

- Assisted in organizing the 2023 Special Olympics East Asia Athlete Leadership Training.
- Supported YEC in promoting Special Olympics and disability inclusion in China.
- Designed, filmed, and edited promotional videos for inclusion campaigns.

### **AGI Media Intelligence Application R&D Center, Jinan University**

Research Assistant

Jun 2024 – Jun 2025

- Conducting research on AI-driven media applications, with a focus on computational communication and generative AI; Supporting data collection, analysis, and experimental design for interdisciplinary projects.
- Assisted in organizing academic seminars and frontier lectures to promote scholarly exchange.

## **AWARDS & HONORS**

- National Scholarship (Top 1% honor, Ministry of Education of China)

2021 – 2022

- Third Prize, Paper: *Research on Identity Avoidance and Social Integration of Siblings of Individuals with Intellectual Disabilities from a Technology-empowerment Perspective*, 8th Guangdong Postgraduate Forum on Journalism and Communication

2023

- Third Prize & Outstanding Field Researcher, *China Livelihood Survey 2021*, Development Research Center of the State Council

2021

- Third Prize (National) & First Prize (Provincial), *9th National Undergraduate Computer Design Competition – Digital Media Animation and Short Film*

2021

- Provincial Awards (1st ×2, 2nd ×2, 3rd ×4), National College Student Advertising Art Competition & National College Digital Art Competition – Science Popularization Video

2020–2022

- Awarded Volunteer Service Certificate, People's Government of Jiangsu Province

2021

## **SKILLS**

### **Data Analysis & Visualization**

Experienced in semantic network analysis, social network analysis, and topic modeling.

Proficient in Python (NumPy, Scikit-learn, NetworkX, BERTopic, etc.) and OriginLab.

Skilled in front-end development and creating interactive charts with D3.js, Plotly, and Matplotlib.

### **Media Production**

Proficient in Adobe Premiere Pro, Photoshop, After Effects, Audition, as well as Autodesk Maya.

Capable of independently conducting video planning, scriptwriting, shooting, and editing.

### **Additional Interests**

Piano (Level 10 Certificate); Reading & Writing (Member, Taicang Writers' Association, Jiangsu Province).