Jingxin Yang

+1 (650) 283-4934 | jingxinyang@stanford.edu | LinkedIn: Victoria Yang | Jingxin Personal Website

Education

Stanford University — Stanford, CA, USA
M.S. in Management Science & Engineering — *Sept. 2024 - Sept. 2026*

- **Coursework:** Foundations of Decision Analysis (A+), Investment Science (A), Natural Language Processing with Deep Learning, NLP for Computational Social Science, Natural Language Processing
- **School Employment:** Research Assistant in Computational Social Science, Teaching Assistant for Stanford Women in Math Mentoring (2024)

South China Agricultural University — Guangzhou, China
B.Eng. in Computer Science & Technology — *Sept. 2020 - June 2024*

- GPA: 87/100, Rank: 3/219
- **School Employment:** Teaching Assistant in Machine Learning and Data Mining, Introduction to Programming in Python, Algorithms and Data Structures, and Database Management Systems.
- **Honors and Awards:** National Scholarship (**Top 1%**, 2021, 2022, 2023), Government Scholarship (**Top 1%**, 2023), Chow Tai Fook Scholarship (2021, 2022), Wens Company Scholarship (2021, 2022)

Publication

- **J.X. Yang**, P.N. Li, *"High-Precision Extraction Algorithm for Pig Ear Temperature Based on Infrared Thermography"*, accepted by **Measurement** (Impact Factor: 5.2), expected publication in 2024.
- **J.X. Yang**, R.P. Fu, *"Gender Differences in Corruption Cases in China: An Analysis Based on Deep Learning"*, presented at **International Communication Association** (Top Conference), 2023.
- R.P. Fu, **J.X. Yang**, *"Give it to Whoever Deserves It": Labour Theory Defines Copyright of AIGC and Its Methodology"*, published in **Journal of European Intellectual Property Review**, 2023.
- **J.X. Yang**, et al., *"3D Laser Acquisition and Modeling of Tunnel Engineering Point Cloud Data"*, presented at **International Conference on Scientific Computation and Applied Statistics**, 2022.

Research Experience

Gendered Patterns in Corruption Cases: Evidence from China — SCAU
Research Assistant, Supervisor: Prof. Xiaomin Chen — *Jan. 2022 - Jun. 2023*

- Independently designed and developed a hybrid neural network model (CNNs and RNNs) to analyze 4,000+ corruption cases, achieving 93.19% accuracy in gender classification and uncovering critical gender-related patterns in sentencing and case resolution.
- Improved model performance by 5% in feature recognition and 20% in data processing speed through advanced preprocessing techniques.
- Led the analysis of gender-specific sentencing patterns, achieving 75% detection accuracy for 'suspended sentence' in male cases and an overall case identification accuracy of 90%, providing quantitative support for research on judicial disparities.
- Investigated gendered behaviors in judicial and organizational contexts, offering data-driven insights to inform gender equality policies and advance social reforms with AI.

Algorithmic Authority in Livestock Monitoring Systems — SCAU
Project Manager, Supervisors: Prof. Zaoqing Liang, Prof. Deqin Xiao — *May 2023 – April 2024*

- Developed a YOLOv5-based pig ear detection system (95.3% mAP, 30 FPS), enabling algorithmic decision-making in livestock management. Achieved a daily processing capacity of 10,000+ images with a 9.74% improvement in accuracy.
- Implemented a mobile monitoring robot equipped with magnetic levitation and real-time SLAM navigation (5 cm precision), replacing traditional manual inspections, reducing supervision time by 40%, and covering 1,000 square meters per hour.

- Engineered a sound classification system leveraging a four-directional microphone and the Inception-v3 model, achieving 92% accuracy in detecting key audio events such as pig vocalizations, feeding sounds, and environmental noise, with a processing capacity of 200+ audio segments per hour. Demonstrated AI's potential in enhancing accountability mechanisms for animal welfare monitoring.

Causal Inference and Network Modeling in Generative AI Systems Sun Yat-sen University
Project Lead *Oct 2022 - Apr 2023*

- Constructed and optimized a high-quality generative AI dataset with over 7 million cases, achieving a 91.2% improvement in analysis efficiency through Python and NLP techniques, significantly reducing manual labor and providing robust data foundations for social system research.
- Engineered efficient predictive models, increasing processing speed by 15% and prediction accuracy by 10%, demonstrating practical value in large-scale computational tasks and advancing algorithmic efficiency in social network analysis.
- Applied causal inference and graph theory methods to investigate intellectual property issues in generative AI systems, analyzing over 2 million cases and improving copyright prediction accuracy by 25%, contributing to equitable algorithmic applications in computational social science.

Projects

Simplify link Palo Alto, CA, USA
Product Advisor *Sept. 2024 – Present*

- Expanded Simplify's functionality to include study-abroad application autofill by designing and launching an intelligent form parsing solution, improving user application efficiency by 40%.
- Led core feature development, including intelligent form parsing, real-time error checking, and application status tracking, significantly reducing redundant data entry time across multiple platforms.
- Constructed an international marketing ecosystem by integrating Instagram, Reddit, and Twitter resources, driving a 30% increase in traffic and attracting a global audience of international students and job seekers.
- Designed incentive programs utilizing giveaways and user-sharing mechanisms, boosting engagement rates by 20% and growing Instagram followers by over 100,000 within two months.

Agricultural Machinery Leasing and Optimization System link Heilongjiang Province, China
Chief Technology Officer *Jan. 2022 – Present*

- Developed a VR-based traffic flow prediction model, improving machinery scheduling efficiency by 15% and reducing transportation time by 20%.
- Constructed a Ridge Regression model that increased agricultural demand prediction accuracy from 65% to 77.8%, effectively reducing resource waste by 22.58%.
- Implemented an optimized routing algorithm and launched a Heads-Up Display interface, reducing empty mileage by 21.30% and lowering operating costs by 16.21%. The system drove user growth to 2 million within the first year, covering 35 rural areas and enhancing agricultural information accessibility by 51.2%.
- Leveraged university engineering innovation labs and collaborated with industry experts to drive technology transfer. Secured support from TikTok, Kwai Research Institute, and a $4 million national innovation grant. Achieved a top 10 placement in the Disrupt SF - Startup Battlefield competition.

Patents

- AI-Powered Multi-Modal Livestock Welfare Assessment System, May 2024
- Intelligent Agricultural Machinery Route Optimization and Energy Efficiency System, February 2024
- Rapid-Response Infrared Thermometry Device for Livestock Health Monitoring, June 2023
- Automated Soil-Covering Vehicle for Modern Agricultural Applications, September 2022
- AI-Driven Livestock Sound Monitoring and Classification System, April 2022
- Intelligent Mobile Charging Robot System with Magnetic Levitation, November 2021
- VR-Based System for Optimizing Machinery Scheduling and Traffic Flow, March 2020

Programming and Innovation Competitions

- The Challenge Cup **National Special Prize**, team leader, (**rank: 4/8 million**), 2023
- Mathematical Contest in Modeling (MCM), team leader, (**award: F Prize (Top 2%)**), 2023
- China Students' 'Internet+' Innovation and Entrepreneurship Competition, **National Gold Prize**, 2022
- Kaggle Image Recognition Competition, team captain, **Gold Award**, 2022
- ACM International Collegiate Programming Contest (ICPC) Asia Regional, **Silver Medal**, 2021

Programming Skills

- C/C++, Java, Python (Pandas, NumPy, Scikit-learn, HuggingFace, Pytorch, Matplotlib, Plotly, SpaCy), STATA, R (ggplot2, NetworkX, statistical modeling), Tableau, Power BI, MATLAB, Google Analytics, Alteryx, LATEX, JavaScript (React, Vue.js, Node.js, D3.js), HTML/CSS, PHP, Arduino

Extracurricular Activities

Teach For America — Palo Alto, CA, USA
Designed data-driven strategies for 200+ high school students, achieving 95% positive feedback. — *Sept. 2024 - Present*

Western What Field School Support Group — Gansu Province, China
Taught computer programming courses to 500+ children in impoverished areas. — *May 2022 - Sept. 2022*

SCAU-China iGEM Team – Drylab Leader — SCAU, China
Led data analysis for synthetic biology models, and won Global Gold Award. — *June 2020 – Mar. 2022*

Language

- **IELTS**: 8.0 (Writing: 8.5)
- **TOPIK II**: 6
- **TOEFL**: 116 (Speaking: 28)
- **GRE**: 339 (V: 169, Q: 170, Writing: 4.5)