NAN ZHANG

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SUMARRY

PhD candidate in Information & Media at Michigan State University (expected May 2026) with a foundational background in Computer Science. She has designed and delivered courses in digital analytic, developed interactive modules on Python programming, web scraping, data visualization, and machine learning statistical analyzing, and served as a teaching assistant in both advertising and computer science courses. As an NIH-funded research assistant, she assisted in building a vaccine-misinformation portal using NLP and statistical causal modeling to link social-media discourse with immunization outcomes. Her research portfolio spans AI-powered persuasion agents, computer-vision models for advertising analytics, and real-time human-activity recognition using deep learning and radar/MIMO sensing. Nan's work has been presented in venues including the *Journal of Advertising*, IEEE ICDH, ICC, and ICME, and she has received awards such as a Best Student Paper and multiple doctoral scholarships.

AREA OF INTEREST

Computational Advertising & AI Persuasion; Computer Vision for Media Analytics; Statistical Analysis & Machine Learning; Data Sci ence Education.

EXPERIENCE

Michigan State Univeristy

May 2024 - Aug 2024

TEACHING ASSISTANT OF DATA CAMP

- Collaborated with instructors to develop interactive course modules on Python, web scraping, data visualization, and machine learning, contributing to improved student engagement.
- Provided comprehensive support in classroom and laboratory settings, enhancing student learning experiences, and offering one-on-one support.
- Applied statistical methods alongside supervised and unsupervised machine learning algorithms to extract actionable insights and build predictive models from complex social science datasets.

May 2023 - Aug 2023

INSTRUCTOR OF ADVERTISING

- Designed and delivered ADV442; Taught data collection, analysis, and reporting methods for cross- and multi-channel media analytics to inform strategic advertising and public relations decisions.
- Led hands-on workshops using industry-standard analytics platforms to measure campaign performance and evaluate the impact of integrated communication strategies.
- Guided students through media-mix analyses and case studies, culminating in strategic recommendations grounded in data insights.

Aug 2020 – May 2021; Aug 2022- May 2024

TEACHING ASSISTANT OF ADVERTISING

- Led weekly recitation sessions for 30+ students, guiding hands-on analysis of real-world advertising datasets to reinforce core analyti cs concepts
- Collaborated on lesson and assessment design, ensuring alignment with course learning objectives
- Held regular office hours to clarify methods, review student work, and coach on strategic interpretation of analytics results
- Provided detailed feedback on assignments and projects, enhancing students' data-driven decision-making skills

Aug 2021 - May 2022

RESEARCH ASSISTANT FUNDED BY NIH

- Pl Young Anna Argyris and co-advised by Pang-Ning Tan from Computer Science
- Developed a vaccine misinformation portal using natural language processing techniques to analyze the frequency and sentiment of vaccine-related discourse across pre-, during-, and post-pandemic timelines.
- Applied statistical modeling to assess the causal relationship between vaccine-related social media content and immunization rates, contributing to NIH-funded public health research.

Ball State Univeristy

Aug 2016 - May 2018; Aug 2019 - May 2020

TEACHING ASSISTANT OF COMPUTER SCIENCE

- Supported instruction in foundational and advanced computer science courses, including Computer Science 1, Web Programming, Mobile Software Development, Multitier Web Architectures, Distributed Processing and Networks, Forensics, Network Security
- Provided lab support, graded assignments, and assisted students in debugging and deploying code in seven undergraduate and

graduate-level CS courses.

Aug 2018 - May 2019

GRADUATE ASSISTANT OF SIMULATION AND INFORMATION TECHNOLOGY CENTER

- Edited and produced multimedia content for online learning platforms and operations using Adobe Premiere.
- Supported clinical simulation sessions by setting up and operating recording equipment, improving session readiness and recording quality for faculty use.

Aug 2018 - May 2019

EDITORIAL ASSISTANT OF CRITICAL STUDIES IN MEDIA COMMUNICATION

- Edited and refined academic manuscripts and departmental reports, ensuring alignment with APA and journal style guidelines.
- Coordinated editorial communications between faculty and external contributors, streamlining the review and submission process.

EDUCATION

MICHIGAN STATE UNIVERISTY **Aug 2020 - May 2026**

PH.D. CANIDATE IN INFORMATION AND MEDIA

Awards: Recipient of Summer Research Scholarships, Bonnie Reece Scholarship, Doctoral Graduate Fellowship, Janet L. Loria Scholarship, Advertising + Public Relations Department Faculty Recognition Award

BALL STATE UNIVERISTY

MASTER OF ART, DIGITAL STORYTELLING GPA: 3.88 **Aug 2018 - May 2020**

MASTER OF SCIENCE, COMPUTER SCIENCE GPA**:** 3.97 **Aug 2016 - May 2018**

Awards: Recipient of Graduate Merits Scholarship

BACHELOR OF SCIENCE, COMPUTER SCIENCE GPA**:** 3.89 **Aug 2012 - May 2016**

Awards: Deans lists, Graduate with magna cum laude

PUBLICATIONS

Zhang, N., & Li, H.. Al-powered persuasion agents: A systematic review. Journal of Interactive Advertising. (Out for Review)

Li, H. **Zhang**, N. Computer Vision Models for Image Analysis in Advertising Research. Journal of Advertising. Doi: 10.1080/00913367.2024.2407644

Zhang, N. Li, H. Advancing Advertising Strategies: A Comprehensive Analysis of Machine Learning in Image Analysis. Minnesota Computational Advertising Research Thought Leadership Forum.

Zhang, N. Li, H. Artificial Intelligence for Advertising Creativity: Advances and Implications. In AEJMC Washington, D.C. conference, August 7-10, 2023.

Y. A. Argyris, N. **Zhang**, B. Bashyal and P. -N. Tan. Using Deep Learning to Identify Linguistic Features that Facilitate or Inhibit the Propagation of Anti- and Pro-Vaccine Content on social media. 2022 IEEE International Conference on Digital Health (ICDH), 2022, pp. 107-116, doi: 10.1109/ICDH55609.2022.00025. Barcelona, Spain.

Zhang, N., and Guo, M.. Like or Comment? Explore How Beauty Brands Use Instagram to Promote User Engagement. In BEA2021 conference, April 12-16, 2021. (Best student paper award).

Brookey, R., and **Zhang**, N. The not-so Fantastic Four franchise: A critical history of the comic, the films, and the Disney/Fox merger. In Rauscher, A., Stein, D., & Thon, J. N. (Eds.), Comics and Videogames: From Hybrid Medialities to Transmedia Expansions. Routledge.

Guo, H., **Zhang**, N., Wu, S., and Yang, Q.. Deep Learning Driven Wireless Real-time Human Activity Recognition. In ICC 2020-2020 IEEE International Conference on Communications (ICC), pp. 1-6. IEEE, 2020.

Guo, H., **Zhang**, N., Shi, W., Saeed., A., Wu, S., and Wang, H.. Real-time indoor 3d human imaging based on mimo radar sensing. In IEEE International Conference on Multimedia and Expo (ICME), pp. 1408-1413. IEEE, 2019.