# Lingyu Zhang

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## EDUCATION

**Duke University,** Durham, NC
Ph.D. in Electrical and Computer Engineering — Present
Advised by Prof. Boyuan Chen

**Columbia University,** New York, NY
M.S., Electrical Engineering — 2023/02

**Nanjing University,** Nanjing, China
B.E., Microelectronic Science and Engineering — 2021/06

## PUBLICATIONS

**Lingyu Zhang**, Mitchell Wang, Boyuan Chen. Scientific Judgment Drifts Over Time in AI Ideation, preprint 2025. [**paper**, **project-page**, **video**]

Zhengran Ji, **Lingyu Zhang**, Paul Sajda, Boyuan Chen. Enabling Multi-Robot Collaboration from Single-Human Guidance, ICRA 2025. [**paper**, **project-page**, **video**]

**Lingyu Zhang**, Zhengran Ji, Boyuan Chen. CREW: Facilitating Human-AI Teaming Research, TMLR 2024. [**paper**, **project-page**, **video**, **documentation**]

**Lingyu Zhang**, Zhengran Ji, Nicholas R Waytowich, Boyuan Chen. GUIDE: Real-Time Human-Shaped Agents, Neurips 2024. [**paper**, **project-page**, **video**]

Kung-Hsiang Huang, Mingyang Zhou, Hou Pong Chan, Yi R Fung, Zhenhailong Wang, **Lingyu Zhang**, Shih-Fu Chang, Heng Ji. Do LVLMs Understand Charts? Analyzing and Correcting Factual Errors in Chart Captioning, ACL Findings 2024. [**paper**]

**Lingyu Zhang***, Chengzhi Mao*, Junfeng Yang, Carl Vondrick. Robust Video Perception by Seeing Motion, Arxiv 2023. [**arxiv**, **project-page**]

Chengzhi Mao, **Lingyu Zhang**, Abhishek Vaibhav Joshi, Junfeng Yang, Hao Wang, Carl Vondrick. Robust Perception through Equivariance, ICML 2023. [**arxiv**, **project-page**]

Bangpeng Xiao, Shenyuan Ye, Xicai Li, Min Li, **Lingyu Zhang**, Yuanqing Wang. A Stereo Matching Method for Three-Dimensional Eye Localization of Autostereoscopic Display, ICIG 2021.

## RESEARCH EXPERIENCE

**Columbia University, Fu Foundation School of Engineering and Applied Science**

*Research Assistant: Multimodal Learning*
Advisor: Prof. Shih-Fu Chang & Dr. Mingyang Zhou, Feb 2023 - Aug 2023
Visual language data understanding and detecting manipulated multimodal data.

*Research Assistant: Robust Vision Models*
Advisor: Prof. Junfeng Yang & Prof. Carl Vondrick, Feb-Nov 2022

Designed a novel test-time adaptive adversarial defense for action recognition models using motion consistency. Conducted experiments on novel adversarial purification method based on dense equivariant properties of neural networks.

**Nanjing University, School of Electronic Science and Engineering**

*Undergraduate Thesis: Learned Multi-scale Image Compression*
Advisor: Prof. Qiu Shen, Dec 2020 -June 2021
Implemented an end-to-end optimized image compression model based on an entropy-constrained variational autoencoder with a multi-scale encoder.

## HONORS/AWARDS

Renmin Scholarship, 2018 & 2019
FlyAI Excellent Algorithm Award, 2021

## SERVICE

**Peer Review**
2025 Conference on Robot Learning (CoRL) Reviewer

**Mentorship**
Zhengran Ji - Human-AI Teaming
Mitchell Wang - AI-driven Scientific Ideation

**Teaching Assistant**
Robot Learning - Fall 2025, Duke University

## LEADERSHIP

**Engineering Graduate Student Council, Duke University**
*ECE PhD Representative*, Sept 2025 - present

**Graduate Electrical Engineering Council, Columbia**
*Career Chair*, Jan 2022 - Dec 2022

**Engineering Graduate Student Council at Columbia Engineering**
*Lead Department Representative of EE,* Jan 2022 - Dec 2022

**Nanjing University Summer Social Practice Project**
*Team Leader*, June - Aug 2020

**The Berkeley Project**
*Site Leader & Volunteer*, Oct 2019

**Nanjing University Hip-Hop Association**
*President*, Aug 2018 - June 2019

**Nanjing University Hip-Hop Association**
*Class Representative.*, Sept 2017 - July2018

## PROFESSIONAL TRAINING

**Karlsruhe Institute of Technology, Virtual**
*Industry 4.0 Training for Young Talent*, Sep-Oct 2020
Lean Production, Lean Line Design, Machine Learning, Data Analysis and Industry 4.0 of Production Planning and Control.

## LANGUAGE

**GRE:** 334 **(**V164 + Q170), **TOEFL:** 114