

ANBANG LIU

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Education

Northwestern University

Master of Computer Science

September 2025 – June 2027

Advisor: Manling Li; GPA: 4.00/4.00

University of San Francisco

Bachelor of Computer Science

January 2022 – May 2024

GPA: 4.00/4.00

South China University of Technology

Software Engineering

September 2019 – December 2021

Research Interests

Embodied AI: VLM evaluation, world modeling, spatial intelligence, reasoning and planning, and multi-agent systems.

AI for Science: computational biology, medical AI, interpretability.

Research Experience

Machine Learning and Language Lab, Northwestern University

Graduate Researcher

Advisor: Manling Li

January 2026 – Present

- Designed benchmark tasks and evaluation protocols for embodied and image-based settings, built reproducible evaluation pipelines, and analyzed VLM reasoning, robustness, and planning behavior across diverse visual tasks.

Chen Lab, University of Chicago

Graduate Researcher

Advisor: Siwei Chen

July 2025 – Present

- Developed a sequence-based machine learning framework for biomolecular interaction modeling with downstream interpretability analysis for biological investigation.
- Conducted multimodal medical AI research on clinically relevant imaging and related data, developing and evaluating machine learning models for predictive tasks.

MAGICS Lab, Northwestern University

Graduate Researcher

Advisor: Han Liu

April 2025 – March 2026

- Trained and deployed robotic control policies for manipulation tasks, collected teleoperated demonstrations for image-conditioned offline learning, and evaluated policy performance in simulation and real-world settings for task success, generalization, and sim-to-real transfer.
- Developed a data-centric vision pipeline for self-driving laboratories that integrated automatically collected real-world data with validated synthetic images for robust bubble detection in precision-sensitive pipetting.

Publications

Anbang Liu, Guanzhong Hu, Jiayi Wang, Ping Guo, Han Liu. *Data-Centric Visual Development for Self-Driving Labs*. arXiv preprint arXiv:2512.02018, 2025.

Teaching Experience

Northwestern University

Peer Mentor for CS449(Deep Learning), CS461(Deep Learning for NLP)

Evanston, IL

January 2026 – Present

University of San Francisco

Teaching Assistant for CS107, CS110, CS112

San Francisco, CA

May 2022 – May 2024

Industry Experience

Felloc

Software Development Engineer

Seattle, WA

July 2024 – June 2025

University of San Francisco

USFMobile Usability and Functional Tester

San Francisco, CA

March 2022 – May 2024

Web Development Engineer

June 2022 – July 2022

China Southern Airlines

Software Development Engineer

GuangZhou, China

December 2020 – February 2021

Academic Awards and Services

University of San Francisco

- Computer Science Graduate Alumni Mentor
- Academic Excellence Award
- Dean's List, College of Arts and Sciences

September 2025 – May 2026

Class of 2024

Spring 2022, Fall 2022, Spring 2023, Fall 2023