Chen Fang

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Education

Aug 2023 – May 2027 **B.S. in Mathematics and Computer Science**, University of Illinois Urbana-Champaign
GPA: **3.97**/4.00 · Major GPA: **4.00**/4.00 · Dean's List

Honors & Awards

2026 **Anthropic AI for Science — Rare Disease Research Grant**
Awarded **$50,000** in Claude credits; **1 of 100 projects selected from 750+ applications**. Supports research on agentic vision-language models for the diagnosis of rare skin diseases.
Proposal: *Zebra or Horse? A Phenopacket-Grounded Benchmark for Genodermatoses Versus Infectious Mimics*

Research Interests

Agentic AI, vision-language models, MLLM post-training, social embodied AI, and AI for healthcare, with an emphasis on egocentric systems for AR smart glasses.

Research Experience

Rehg Lab, UIUC

Jan 2026 – Present ***Project Lead*** · PI: **James M. Rehg** · Collaborator: **Megan Coffee** (NYU) · Mentor: **Xu Cao**
MedXRAgent (EgoMedAgent), Medical Vision-Language Model, and LLM Post-Training

- Leading MedXRAgent (EgoMedAgent), an AR smart-glasses clinical assistant for outpatient encounters that grounds streamed dialogue and egocentric video in structured patient context and web-based medical evidence.
- Introduced MedXR-Bench, 1,066 egocentric video cases built from NEJM Image Challenge; MedXRAgent achieves the best open-ended diagnosis score on its test split.
- First-author paper under review at NAACL 2027, with an earlier version accepted at the ECCV 2026 Workshop AIW; first-author CVPR 2026 demonstration, selected as a **Spotlight**.

NYU Langone Health

Aug 2026 – Present ***Adjunct Researcher*** · PI: **Megan Coffee** · Mentor: **Xu Cao**
Medical Vision-Language Models for Rare Dermatology Diagnosis

- Drafted and submitted the Anthropic AI for Science research proposal for Dr. Megan Coffee.
- Developing medical vision-language models and reinforcement-learning post-training pipelines for rare dermatology diagnosis, supported by the Anthropic AI for Science Rare Disease Research Grant.

Health Care Engineering Systems Center, UIUC

Jan 2026 – May 2026 ***Co-Lead*** · PI: **Inki Kim** (Carle Illinois College of Medicine) · Mentor: **Houze Yang**
GazeAgent

- Co-led GazeAgent, a query-driven gaze analysis system that turns observer-worn smart-glasses video into a semantically grounded gaze timeline and answers natural-language queries through a code-generating agent; IMWUT manuscript under review.
- Built the AR demonstration for analyzing children's gaze behavior in psychological assessments, selected as a **Spotlight** at CVPR 2026.

Secure Learning Lab, UIUC

Sep 2025 – May 2026

Co-Lead · PI: **Bo Li** · Mentor: **Mintong Kang**

AudioGuard

- Co-led an audio safety framework that pairs waveform-level audio understanding with ASR-based content moderation to catch risks that transcripts miss; it outperforms monolithic audio-LLM guardrails in both accuracy and latency across five benchmarks.
- Built benchmark and evaluation workflows around AUDIOSAFETYBENCH, covering 10K+ labeled samples, 17 languages, and 50+ speaker identities; manuscript under review at ICLR 2027.

Work Experience

PediaMed AI

Jun 2026 – Present

Member of Technical Staff

- Applying GazeAgent's query-driven analysis of children's gaze to in-home developmental screening, turning how children look and play into early developmental signals.
- Extending child-learning-inspired multimodal models (CVPR 2026 workshop) toward child-like continual learning in AI.

Selected Publications

[1] **Towards Evidence-based Egocentric Assistant for Clinical Perception and Action**
Chen Fang, Xu Cao, Houze Yang, Yifan Shen, Adam Richard Cross, Jianguo Cao, Megan Coffee, and James M. Rehg.
NAACL 2027 (under review); earlier version: **ECCV 2026 Workshop AIW** (accepted) [Paper] [Website]

[2] **GazeAgent: From Gaze Estimation to Query-Driven Analysis in Naturalistic Interactions**
Houze Yang, Xu Cao, **Chen Fang**, Junho Kim, Jeffrey Gustafson, Inki Kim, and James M. Rehg.
IMWUT (under review) [Paper] [Website]

[3] **Native Real-Time Interactive Omni Intelligence: A Unified Framework**
Yifan Shen, Zhuoqing Zhong, Xinzhuo Li, Jiateng Liu, …, **Chen Fang**, …, and Ismini Lourentzou.
Preprints.org (preprint, 2026) [Paper]

[4] **Agentic Gaze Analysis with AR Interaction**
Houze Yang, Xu Cao, **Chen Fang**, Zhongyi Zhou, …, Inki Kim, and James M. Rehg.
CVPR 2026 Demonstrations (accepted) ★ **Spotlight** [Poster] [Website]

[5] **EgoMedAgent: Towards Evidence-based Egocentric Assistant for Clinical Perception and Action**
Chen Fang, Xu Cao, Houze Yang, and Yifan Shen.
CVPR 2026 Demonstrations (accepted) ★ **Spotlight** [Code] [Poster] [Website]

[6] **AudioGuard: Toward Comprehensive Audio Safety Protection Across Diverse Threat Models**
Mintong Kang, **Chen Fang**, and Bo Li.
ICLR 2027 (under review) [Paper]

[7] **Position: Multimodal LLMs Should Learn from Children**
Yifan Shen, Chuanmiao Dong, Zhuoqing Zhong, Pei Tian, …, **Chen Fang**, and Xu Cao.
CVPR 2026 Workshop CV4CHL (accepted) [Paper]

Teaching Experience

Fall 2025 ***Head Teaching Assistant***, CS 521: Trustworthy AI Systems, UIUC
Contributed to exam and rubric design, grading, and course operations.

Spring 2024 – Spring 2025 ***Teaching Assistant and Mentor***, CS 124: Introduction to Computer Science I, UIUC
Optimized the online office-hour queue system and rules, cutting average student wait time by 9.3%; led and trained a team of mentees to become course assistants.

Skills

Unity, Unreal Engine, Blender · Python, PyTorch · C, C++, C#, Java · Docker, Git