

George Z. Wei

CURRICULUM VITAE

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<https://gzhongwei.github.io>

Research Interests

Interested in 3D computer vision, generative AI, and multimodal foundation models. Within 3D computer vision, I am interested in volumetric rendering and 3D/4D reconstruction. Within generative AI, I am interested in (3D) video generation.

Education

Carnegie Mellon University

M.S. Robotics (Advisor: [László A. Jeni](#))

Pittsburgh, PA

2024 – 2026

University of Massachusetts Amherst

B.S. Computer Science & Statistics/Data Science (Advisors: [Mohit Iyer](#) & [Ina Fiterau](#))

Amherst, MA

2018 – 2022

- Thesis: Analyzing Low Recall Text-Image Retrieval with LXMERT and CLIP

Experience

FAIR, AI @ Meta

AI Resident under [Satwik Kottur](#)

Menlo Park, CA

Jul 2022 – Jul 2024

- Worked on egocentric video-language modeling and long egocentric video understanding.
- Experimented with bootstrapping high-level goals of camera wearers from Ego4D narrations.

Combinatorics and Algorithms for Real Problems REU

Research Intern under Prof. [John P. Dickerson](#) and Prof. [Tom Goldstein](#)

College Park, MD

Jun 2021 – May 2022

- Worked on facial detection robustness and facial recognition bias.

Publications

* indicates equal contribution

1. Robustness Disparities in Face Detection

Samuel Dooley, **George Z. Wei**, Tom Goldstein, John Dickerson.

[Advances in Neural Information Processing Systems. 2022.](#)

2. Maruna Bot: An Extensible Retrieval-Focused Framework for Task-Oriented Dialogues

Amit Hattimare, Arkin Dharawat, Yelman Khan, Yen-Chieh Lien, Chris Samarinas, **George Z. Wei**, Yulin Yang, Hamed Zamani.

[Alexa Prize TaskBot Challenge Proceedings. 2022.](#)

3. Are Commercial Face Detection Models as Biased as Academic Models?

Samuel Dooley*, **George Z. Wei***, Tom Goldstein, John P. Dickerson.

[arXiv. 2022.](#)

4. **An Analysis of Low Recall Text-Image Retrieval with LXMERT and CLIP**

George Z. Wei, Ina Fiterau, Mohit Iyyer.

Undergraduate Honors Thesis. 2021.

5. **Comparing Human and Machine Bias in Face Recognition**

Samuel Dooley*, Ryan Downing*, **George Wei***, Nathan Shankar, Bradon Thymes, Gudrun Thorkelsdottir, Tiye Kurtz-Miott, Rachel Mattson, Olufemi Obiwumi, Valeriia Cherepanova, Micah Goldblum, John P Dickerson, Tom Goldstein.

arXiv. 2021.

Honors and Awards

Outstanding UCA Award

Manning College of Information and Computer Sciences

Computer Networking
Introduction to Algorithms

UMass Amherst

Fall 2020 – Fall 2021

Spring 2021, Fall 2021

Fall 2020

Academic Service

Reviewer

DSTC11 Track 1

'22

NeurIPS Datasets and Benchmark Track

'22

Teaching

Undergraduate Course Assistant

Manning College of Information and Computer Sciences

Computer Networking
Introduction to Computer Graphics
Introduction to Algorithms
Introduction to Problem Solving with Computers

UMass Amherst

Fall 2019 – Spring 2022

Spring 2021 – Spring 2022

Spring 2022

Fall 2020

Fall 2019, Spring 2020

Relevant Coursework

Carnegie Mellon University

Learning for 3D Vision, Learning-Based Image Synthesis, Geometry-based Methods in Vision, Math Fundamentals for Robotics

UMass Amherst

Intelligent Visual Computing, Advanced NLP, Conversational AI, Machine Learning, Introduction to Partial Differential Equations

Skills

Languages

Python, TypeScript, JavaScript, \LaTeX , C++, C, HTML

ML Tools

PyTorch, PyTorch Lightning, HuggingFace, Hydra, submitit, Mephisto, OpenCV