Tingbo Hou

M houtingbo@gmail.com in LinkedIn

◆ Google Scholar



Work Experience

Meta, GenAI May 2024 - Present

AI Research Scientist Menlo Park, CA

• TL of Video Generation in the AI Foundation team. Leading multiple projects on text-to-video generation and its applications.

• Research highlights:

* Text-to-video generation: Movie Gen, LinGen

* Transformer auto-encoder: ViToK

* Real-time video generation: StreamDiT

Google March 2019 - May 2024

Senior Staff Software Engineer, TLM

Mountain View, CA

• Led a small team in Research and Core ML, working on on-device computer vision and image generation.

• Research highlights:

* Text-to-image generation: Imagen 3, MobileDiffusion (ECCV 24)

* One-step diffusion: EM Distillation (NeurIPS 24), UFOGen (CVPR 24), SIDDMs (NeurIPS 23)

* Personalization and finetuning: HyperDreamBooth (CVPR 24), PRDP (CVPR 24), Taming Encoder

• Research to production:

* Photos / Pixel: Photo Unblur, Best Take

* YT Shorts Effects: NeverBlink, AlwaysSmile, Grumpy, etc.

* Meet: Studio Look, Background Replace

* Cloud: Imagen

Didi Research America May 2017 - March 2019

Staff Software Engineer, TLM Mountain View, CA

Google October 2012 - May 2017

Senior Software Engineer Mountain View, CA

Kodak Research Labs June 2009 - August 2009

Research Intern Rochester, NY

Siemens Corporate Research June 2008 - August 2008

Research Intern Princeton, NJ

Recent Publications

• StreamDiT: Real-Time, Infinite Video Generation for Interactive Applications, 2025

- Movie Weaver: Tuning-Free Multi-Concept Video Personalization with Anchored Prompts, 2025
- Learnings from Scaling Visual Tokenizers for Reconstruction and Generation, 2025
- LinGen: Towards High-Resolution Minute-Length Text-to-Video Generation with Linear Computational Complexity, 2024
- Movie Gen: A Cast of Media Foundation Models, 2024
- Imagen 3, 2024
- EM Distillation for One-step Diffusion Models, NeurIPS 2024
- 3D Congealing: 3D-Aware Image Alignment in the Wild, ECCV 2024
- Mobile Diffusion: Subsecond Text-to-Image Generation on Mobile Devices, ECCV 2024

- PRDP: Proximal Reward Difference Prediction for Large-Scale Reward Finetuning of Diffusion Models, CVPR 2024
- UFOGen: You Forward Once Large Scale Text-to-Image Generation via Diffusion GANs, CVPR 2024 (Spotlight)
- HyperDreamBooth: HyperNetworks for Fast Personalization of Text-to-Image Models, CVPR 2024
- DreamInpainter: Text-Guided Subject-Driven Image Inpainting with Diffusion Models, 2023
- HiFi Tuner: High-Fidelity Subject-Driven Fine-Tuning for Diffusion Models, 2023
- Taming Encoder for Zero Fine-tuning Image Customization with Text-to-Image Diffusion Models, 2023
- Semi-Implicit Denoising Diffusion Models (SIDDMs), NeurIPS 2023
- Towards Authentic Face Restoration with Iterative Diffusion Models and Beyond, ICCV 2023
- Multiscale Representation for Real-Time Anti-Aliasing Neural Rendering, ICCV 2023

Education

- Ph.D. in Computer Science, Stony Brook University, 2012
- M.E., Chinese Academy of Sciences, 2007
- B.S., University of Science and Technology of China, 2004

Misc

- Co-organizer of the Workshop on Efficient and On-Device Generation (EDGE), in conjection with CVPR 2024 and 2025
- Google Tech Impact Award, 2023
- Research PA Impact Award, 2023
- Core Tech Impact Award, 2022
- Catacosinos Fellowship for Excellence in Computer Science, 2010