ZHIZHONG LI

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EDUCATION

University of Illinois at Urbana-Champaign PhD. Computer Science *Aug. 2015 - May 2020*

Carnegie Mellon University, Pittsburgh M.S. Robotics *Aug. 2013 - Dec. 2014*

Tsinghua University, Beijing GPA 91.52, top 3% B.S. Automation *Aug. 2009 - Jul. 2013*

WORK EXPERIENCE

Amazon *Applied Scientist* (AWS Rekognition, Bedrock; AGI Foundations) July 2019 - present
· A core scientist of the image pre-training team of the Amazon Nova understanding models.
· Science owner of the fine-tuning feature of Amazon Titan Multimodal Embeddings.

NVIDIA Corp. *Research Intern* May 2019 - Aug. 2019

Snap Inc. *Research Intern* May 2018 - Aug. 2018

Samsung Semiconductor Inc. *Research Intern* May 2017 - Aug. 2017

UIUC Vision Group, main student admin+maintainer of our GPU cluster June 2018 - June 2020

RESEARCH AREAS

Computer vision, especially when involving large language models (LLMs/LVLMs), hallucination, or continual learning. Occasionally, I also work on domain adaptation, transfer learning, and 3D vision.

SELECT PUBLICATIONS

The Amazon Nova family of models: Technical report and model card. 2024.
Amazon Artificial General Intelligence

THRONE: An object-based hallucination benchmark for the free-form generations of large vision-language models. In CVPR 2024.
Prannay Kaul, **Zhizhong Li**, Hao Yang, Yonatan Dukler, Ashwin Swaminathan, CJ Taylor, Stefano Soatto.

Class-incremental learning with strong pre-trained models. In CVPR 2022.
Tz-Ying Wu, Gurumurthy Swaminathan, **Zhizhong Li**, Avinash Ravichandran, Nuno Vasconcelos, Rahul Bhotika, Stefano Soatto.

Learning Curves for Analysis of Deep Networks. In ICML 2021.
Derek Hoiem, Tanmay Gupta, **Zhizhong Li**, Michal Shlapentokh-Rothman.

Dreaming to Distill: Data-free Knowledge Transfer via DeepInversion. CVPR 2020 (Oral talk)
Hongxu Yin, Pavlo Molchanov, Jose Alvarez, **Zhizhong Li**, Arun Mallya, Derek Hoiem, N. Jha, and Jan Kautz.

Improving Confidence Estimates for Unfamiliar Examples. In CVPR 2020 (Oral talk)
Zhizhong Li, and Derek Hoiem.

Learning without forgetting. In PAMI 2017 and ECCV 2016. (Spotlight talk)
Zhizhong Li, and Derek Hoiem.

SKILLS AND MISCELLANEOUS

Language	**Python**, C/C++, MATLAB, Java
Frameworks	**PyTorch**, **scikit-learn**, Gradio, Spark, MatConvNet, Caffe
Miscellaneous	**LaTeX**, **Vim**, **git**, **docker**

* Regular usage in bold