# HAODONG LI

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#### **EDUCATION**

#### **University of Pennsylvania (UPenn)**

06/2024 ~ 03/2025 (expected)

School of Engineering and Applied Science

Philadelphia, United States

• Visiting Research Intern

• Supervisor: Prof. Lingjie Liu • Research Topic: 3D Vision

## The Hong Kong University of Science and Technology (HKUST)

 $09/2023 \sim 06/2025$  (expected)

Information Hub, Guangzhou Campus

Clear Water Bay, Hong Kong & Guangzhou, China

Master of Philosophy (General)

• Supervisor: Prof. Ying-Cong Chen, Prof. Xin Tong • Research Topic: Generative Models, 3D Vision

• Grades: 3.9/5.0. Credits: 11.0

## Zhejiang University (ZJU)

**SIGGRAPH Aisa 2024** 

 $09/2019 \sim 06/2023$ 

College of Control Science and Engineering

Hangzhou, China

• Bachelor of Engineering in Automation

• Grades: 3.7/4.0, Credits: 191.0

## RESEARCH (\*Equal Contribution, Order Randomized)

## StereoDiff: Stereo-Diffusion Synergy for Video Depth Estimation

11/2024

In Submission | Project page: stereodiff.github.io

Philadelphia

Haodong Li, Chen Wang, Jiahui Lei, Zhiyang Dou, Kostas Daniilidis, Jiatao Gu, Lingjie Liu

TL;DR: StereoDiff is a two-stage video depth estimator, uniting stereo matching for global 3D structure in static regions with depth diffusion for smooth transitions in dynamic areas, achieving SoTA performance.

#### LOTUS: Diffusion-based Visual Foundation Model for High-quality Dense Prediction

09/2024

**In Submission** | Project page: lotus3d.github.io

Guangzhou & Philadelphia

Jing He\*, **Haodong Li\***, Wei Yin, Yixun Liang, Leheng Li, Kaiqiang Zhou, Hongbo Zhang, Bingbing Liu, Ying-Cong Chen TL;DR: Based on Stable Diffusion, Lotus delivers SoTA performance on monocular depth & normal estimation with a simple yet effective fine-tuning protocol that better fits the pre-trained visual prior for dense prediction.

## DisEnvisioner: Disentangled and Enriched Visual Prompt for Customized Image Generation

07/2024

In Submission | Project page: disenvisioner.github.io

Guangzhou

Jing He\*, **Haodong Li**\*, Yongzhe Hu, Guibao Shen, Yingjie Cai, Weichao Qiu, and Ying-Cong Chen

TL;DR: DisEnvisioner effectively identifies and enhances the subject-essential features while filtering out other irrelevant ones, enabling exceptional image customization in a tuning-free manner with only a single image.

## DIScene: Object Decoupling and Interaction Modeling for Complex Scene Generation

05/2024

Guangzhou

Xiao-Lei Li, **Haodong Li**, Hao-Xiang Chen, Tai-Jiang Mu, and Shi-Min Hu

TL;DR: DIScene is capable of generating complex 3D scene with decoupled objects and clear interactions, through a learnable scene graph and hybrid Mesh-Gaussian representation.

LucidDreamer: Towards High-Fidelity Text-to-3D Generation via Interval Score Matching

CVPR 2024 Highlight | Project page: github.com/envision-research/luciddreamer

11/2023 Guangzhou

Yixun Liang\*, Xin Yang\*, Jiantao Lin, **Haodong Li**, Xiaogang Xu, and Ying-Cong Chen

*TL;DR*: LucidDreamer is a text-to-3D generation framework that distills high-fidelity textures and shapes represented by 3D Gaussians from pre-trained Stable Diffusion with a novel Interval Score Matching objective.

#### Bi-TTA: Bidirectional Test-Time Adapter for Remote Physiological Measurement

01/2024

ECCV 2024 | Project page: bi-tta.github.io

Guangzhou

Haodong Li, Hao Lu, and Ying-Cong Chen

*TL;DR*: Bi-TTA leverages spatial and temporal consistency with novel prospective and retrospective strategies, enabling pre-trained rPPG models to adapt effectively to target domains using only unannotated instance-level data.

#### **PROJECTS**

#### AlphaCC Zero: A Chinese Chess Robot Powered by Reinforcement Learning

08/2022

**Haodong Li**, Yipeng Shen, Zhengnan Sun, Jin Zhou, Xiayan Xu, Jiuqiang Zhao, and Yiping Feng

Hangzhou

Project demo: https://youtu.be/V6IXxbrqHmE

## **Predictive Analytics of Chemical Indicators in Ironmaking Industry**

06/2023

Haodong Li, and Xinmin Zhang

Hangzhou

#### COMPETITIONS

**Championship** of 2021 RoboCup China Open (Small Size League)

Tianjin

First Prize in National Finals of 2021 "Siemens Cup" China Intelligent Manufacturing Challenge

Shanghai

## **HONORS**

- HKUST(GZ) Postgraduate Student Fellowship
- · ZJU Academic Excellence Award
- · ZJU Student Leadership Award

- · ZJU Excellent Student Research Training Program
- · ZJU Innovation & Entrepreneurship Award