

# Chuong Huynh

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## Education

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### University of Maryland, College Park

Ph.D. in Computer Science - GPA: 3.86/4.0

MD, U.S.A.

2021 – 2026

### University of Science – Vietnam National University

Bachelor of Science in Honors Program – Information Technology

Vietnam

2014 – 2018

## Selected Publications ([Full list](#))

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### Composing Object Relations and Attributes for Image-Text Matching

Khoi Pham, Chuong Huynh, Ser-Nam Lim, Abhinav Shrivastava

CVPR'24

### MaGGle: Masked Guided Gradual Human Instance Matting

Chuong Huynh, Seoung Wug Oh, Abhinav Shrivastava, Joon-Young Lee

CVPR'24

46k views on AK

### SimpSON: Simplifying Photo Cleanup With Single-Click Distracting Object Segmentation

Chuong Huynh, Yuqian Zhou, Zhe Lin, Connelly Barnes, Eli Shechtman, Sohrab Amirghodsi, Abhinav Shrivastava

CVPR'23

Photoshop features

### Progressive Semantic Segmentation

Chuong Huynh, Anh Tran, Khoa Luu, Minh Hoai

CVPR'21

120 cites, 117 stars

## Research Experience

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### Rufus MM - Amazon.com - Applied Scientist Intern

CoLLM: A Large Language Model for Composed Image Retrieval (Mentor: Dr. Jinyu Yang, Dr. Son Tran, Prof. Mubarak Shah): A strong baseline with a novel self-supervised training method to extend LLM's retrieval ability, will be published at CVPR'25

CA, U.S.A.

05/2024

- 12/2024

### Adobe Inc. - Research Intern

Interactive segmentation (Mentor: Dr. Yuqian Zhou): Class-agnostic visual instance retrieval with user's single-click with attention mechanism (2 patents, 1 CVPR'23)  
Image and Video Matting (Mentor: Dr. Joon-Young Lee): Optimize matting models using weak segmentation mask ( $\uparrow 6x$  speed,  $\downarrow 75%$  mem) (1 patent, 1 CVPR'24).

Remote, U.S.A.

06/2022 –

11/2023

### University of Maryland, College Park - Research Assistant

Image-Text Matching (Advisor: Prof. Abhinav Shrivastava): Design a Textual Scene Graph Embedding to improve the Image - Rich Attribute Text Alignment ( $\uparrow 4-8$  RSUM). (CVPR'24)

MD, U.S.A.

04/2022 –

11/2023

### VinAI Research - AI Resident/Engineer

High-resolution semantic segmentation (Mentor: Prof. Minh Hoai): Integrate global and local context at different scales for highly detailed segmentation (CVPR'21)

Vietnam

Jul 2019 –

Apr 2021

## Honors & Awards

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2021 **Dean's Fellowship** – Ph.D. UMD

2020 **Top 2%** (19/1317) in FGVC Challenge, CVPR Workshop

2019 **Bronze medal** – top 7% (196/2931) in APTOS Kaggle Competition

## Skill Sets

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**Languages:** Python (Proficient), C/C++ (libtorch, TensorRT), Java, Javascript

**Frameworks:** LLM, Huggingface, PyTorch, Scikit-Learn, Numpy, OpenCV, Docker, AWS, GCP, Linux,