

E-Ro Nguyen

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Education

Stony Brook University

Ph.D in Computer Science

New York, USA

Aug 2024 - May 2029 (Expected)

University of Science - VNUHCM

B.Sc in Computer Science

Ho Chi Minh City, Vietnam

2018 - 2022

Experience

Stony Brook University, NY, USA - Graduate Research Assistant

Aug 2024 - Present

- Diffusion-based policies with pixel-motion representation for Robotic Manipulation.
- Multi-modal interaction for Referring Image Segmentation (WACV'25)

University of Science - VNUHCM, Vietnam - Research Assistant

Feb 2022 - Sep 2023

- Explainability and flexibility for interactive Video Retrieval System (MMM'23, ICMR'22)
- Vision-language modeling for Referring Video Object Segmentation (CVPRW'22)

Qualcomm AI Research, HCMC, Vietnam - Research Intern

May 2021 - Feb 2022

- Interpretability and robustness for Semi-supervised Video Object Segmentation.

Selected Publications

(* = Equal Contribution)

Pixel Motion Diffusion is What We Need for Robot Control [🔗]

E-Ro Nguyen*, Yichi Zhang*, Kanchana Ranasinghe, Xiang Li, Michael Ryoo

[arXiv]

Instance-Aware Generalized Referring Expression Segmentation [🔗]

E-Ro Nguyen, Hieu Le, Dimitris Samaras, Michael Ryoo

[arXiv]

Vision-Aware Text Features in Referring Image Segmentation: From Object Understanding to Context Understanding [🔗]

Truong-Hai Nguyen*, E-Ro Nguyen*, Tuan-Anh Vu, Binh-Son Hua, Minh-Triet Tran, Sai-Kit Yeung

[WACV'25]

V-FIRST 2.0: Video Event Retrieval with Flexible Textual-Visual Intermediary [🔗]

Nhat Hoang-Xuan, E-Ro Nguyen, Thang-Long Nguyen-Ho, Minh-Khoi Pham, ..., Minh-Triet Tran

[MMM'23]

Visual-Language Transformer for Referring Video Object Segmentation [🔗]

E-Ro Nguyen, Nhat Hoang-Xuan, Minh-Triet Tran

[CVPRW'22]

PointRend with Attention Fusion Refinement for Polyps Segmentation [🔗]

E-Ro Nguyen, Hai-Dang Nguyen, Minh-Triet Tran

[MediaEval'21]

Selected Awards

Top 13rd at The 2024 ICPC Greater New York Regional Contest

2024

Top 300 at Meta Hacker Cup 2024 [🔗]

2024

Champion at SBU ICPC Team Selection 2024

2024

John Hennessy Fellowship at Stony Brook University

2024

Sixth Place at The 4th Large-scale Video Object Segmentation Challenge at CVPR Workshops

2022

Fourth Place at The 2021 ICPC Asia Hanoi Regional Contest

2022

Champion at The 2021 ICPC National Vietnam Contest

2022

Top 62nd at Facebook Hacker Cup 2021 [🔗]

2021

Other Publications

(* = Equal Contribution)

Pixel Motion as Universal Representation for Robot Control [9]

Kanchana Ranasinghe, Xiang Li, E-Ro Nguyen, Cristina Mata, Jongwoo Park, Michael S Ryoo

[arXiv]

Improving Contrastive Learning for Referring Expression Counting [9]

Kostas Triaridis, Panagiotis Kaliosis, E-Ro Nguyen, Jingyi Xu, Hieu Le, Dimitris Samaras

[arXiv]

Flexible Interactive Retrieval SysTem 3.0 for Visual Lifelog Exploration [9]

Nhat Hoang-Xuan, Hoang-Phuc Trang-Trung, E-Ro Nguyen, Thanh-Cong Le, Minh-Triet Tran

[ICMR'22]

Attention-based Hierarchical Fusion Network for Predicting Media Memorability [9]

E-Ro Nguyen, Hai-Dang Huynh-Lam, Hai-Dang Nguyen, Minh-Triet Tran

[MediaEval'21]

Video Object Segmentation with Memory Augmentation and Multi-Pass Approach [9]

The-Anh Vu-Le, Hong-Hanh, E-Ro Nguyen, Minh-Triet Tran

[CVPRW'20]

Other Awards

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| CS Research Assistantship @ Stony Brook University, NY, USA | 2024 |
| First Prize @ Student Scientific Research Award in Ho Chi Minh City | 2022 |
| First Prize @ The 2021 Ho Chi Minh City AI-Challenge | 2021 |
| Excellent Student in Artificial Intelligence @ Ho Chi Minh City, Vietnam | 2020 |
| Fourth & Sixth Place @ The 2020 DAVIS Challenge on Video Object Segmentation | 2020 |
| Scholarship for Excellent Student - University of Science - VNUHCM | 2020 |
| Sixth Place @ The 2020 ICPC Asia Cantho Regional Contest | 2020 |
| Bronze Medal @ The 2020 ICPC Asia Danang Regional Contest | 2020 |
| Fourth Prize @ The 2019 Samsung Collegiate Programming Cup | 2019 |
| Bronze Medal @ The 2020 ICPC Asia Hanoi Regional Contest | 2018 |
| Bronze Medal @ The 2020 ICPC Asia Yangon Regional Contest | 2018 |
| Represented Vietnam @ Asia-Pacific Informatics Olympiad (APIO), Russia | 2018 |

Services

Conference Reviewer CVPR'26, ICCV'25, WACV'25, CVPR'25

Skills

- > **Programming Languages:** Python, C/C++
- > **Developer Tools:** Git/Github, Docker, Jupyter Notebook
- > **Frameworks/Library:** PyTorch, OpenCV, Numpy, FastAPI, Flask, Gradio

References

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| Michael Ryoo - mryoo@cs.stonybrook.edu | SUNY Empire Innovation Associate Professor, Stony Brook University |
| Dimitris Samaras - samaras@cs.stonybrook.edu | SUNY Empire Innovation Professor, Stony Brook University |