

Thanh-Danh NGUYEN

Computer Science

Email: danhnt.webcontact (at) gmail.com

Portfolio: danhntd.github.io

BIOLOGY

I obtained my B.Sc. (Honors Program) in Computer Science from University of Information Technology (UIT), Vietnam National University Ho Chi Minh City (VNU-HCM) in 2021. I currently work as a researcher at Multimedia Lab., UIT, VNU-HCM. Prior to that, I contributed to Sugimoto Lab., City Science Lab., and VietAI Organization as a research intern, data science engineer, and teaching assistant, respectively. My research projects are under the supervision of Dr. Tiep Nguyen. and Prof. Tam V. Nguyen.

Research Interests. Computer Vision and Applications, Deep Learning and Data Science.

EDUCATION

University of Information Technology, VNU-HCM

HCMC, Vietnam

M.Sc. Student in Computer Science

Dec 2021–present

Thesis: Camouflage Instance Segmentation via Highly-Distinguished Features

B.Sc. in Computer Science (Honors)

Aug 2017–Apr 2021

Thesis: Semantic Image Segmentation in the Dark with Domain Adaptation Method

EXPERIENCE

Multimedia Lab., University of Information Technology, VNU-HCM - *mmlab.uit.edu.vn*

HCMC, Vietnam

Official Researcher

Jun 2021–present

Undergraduate Research Assistant

Aug 2019–Jun 2021

- Conduct research and publish papers, host and join research projects in Computer Vision:
 - * Semantic scene understanding in low-light conditions
 - * Few-shot camouflage instance detection and segmentation
 - * Image generation and reconstruction
- Support students in their student research and projects

Sugimoto Lab., National Institute of Informatics, Japan - *dgc.v.nii.ac.jp*

Tokyo, Japan

Research Intern

Mar 2023–present

- Medical Image Instance Segmentation with Token Contrast (Advisor: Akihiro Sugimoto, Prof. and Nghia Le, Ph.D.)

VietAI Organization - *vietai.org*

Vietnam

Teaching Assistant

Oct 2021–Dec 2022

- Assist in operating AI courses: A-Star Bootcamp for Startups, Machine Learning, Train-the-Trainer

City Science Lab. @Ho Chi Minh City - CSL@HCMC

HCMC, Vietnam

Data Science Engineer

Apr 2021–Oct 2022

- Collaborate with MIT Media Lab., L3-Cities Team to apply Cityscope Urban Analytics Technology to HCMC
- In charge of backend process for Urban Indicators Analytics

SELECTED PUBLICATIONS

1. **Thanh-Danh Nguyen**, Duc-Tuan Luu, Vinh-Tiep Nguyen, and Thanh Duc Ngo, “CE-OST: Contour Emphasis for One-Stage Transformer-based Camouflage Instance Segmentation.” 2023 International Conference on Multimedia Analysis and Pattern Recognition (MAPR). IEEE, 2023. (Scopus)
2. **Thanh-Danh Nguyen***, Anh-Khoa Nguyen Vu*, Nhat-Duy Nguyen*, Vinh-Tiep Nguyen, Thanh Duc Ngo, Thanh-Toan Do, Minh-Triet Tran, and Tam V. Nguyen, “Few-shot Camouflaged Animal Detection and Segmentation”, *CV4Animals Workshop, CVPR 2022*. (invited poster)
3. **Thanh-Danh Nguyen**, Nguyen Phan, Tam V. Nguyen, Vinh-Tiep Nguyen, and Minh-Triet Tran, “Nighttime Scene Understanding with Label Transfer Scene Parser”, *Image and Vision Computing*, May 2022. (under review)
4. Sy-Tuyen Ho, Manh-Khanh Ngo Huu, **Thanh-Danh Nguyen**, Nguyen Phan, Vinh-Tiep Nguyen, Tam V. Nguyen, Thanh Duc Ngo, and Duy-Dinh Le, “APGAN: Abstraction-Perception Preserving Cartoon Face Synthesis”, *Multimedia Tools and Applications*, May 2022. IF = 2.577 (SCI, Q1)
5. Xuan-Duong Nguyen, Anh-Khoa Nguyen Vu, **Thanh-Danh Nguyen**, Nguyen Phan, Bao-Duy Duyen Dinh, Nhat-Duy Nguyen, Tam V. Nguyen, Vinh-Tiep Nguyen, and Duy-Dinh Le, “Adaptive multi-vehicle motion counting”, *Signal, Image and Video Processing (SIVIP)*, Feb 2022. IF = 2.157 (SCIE, Q2)

Please visit my portfolio for the full list (danhntd.github.io/research.html).

AWARDS AND HONORS

- Master, PhD Scholarship Programme of **Vingroup Innovation Foundation - VinIF**, code VINIF.2022.ThS.104, in 2022
- Two scholarships for Excellence of **Pony Chung Foundation** in 2019 and 2020
- Consolation Prize in AI City Challenge Ho Chi Minh City 2020: Vehicle Motion Counting [5]
- Scholarship for Excellence of BIDV Corp. in 2018
- Scholarships for Excellence in GPA (top 8% of students)

SKILLS

- Computer vision, AI, machine learning, deep learning
- Python programming language
- Pytorch framework and Linux server techniques

LANGUAGES

- **Vietnamese:** Native
- **English:** Cambridge First Certificate in English - FCE (level B2, equiv. IELTS 6.0)

EXTRACURRICULAR ACTIVITIES

- UIT Leaders, Youth Union Officials (2017–2021)
- Joined Open English Club (2017–2020)
- Joined Volunteer Works: “UP” Volunteer Campaign (2017), UIT Grow 1000 trees (2018)

REFERENCES

- **Tiep Nguyen, Ph.D.** (Thesis advisor)
Head of Multimedia Lab., University of Information Technology, VNU-HCM, HCMC, Vietnam
Contact: tiepnv@uit.edu.vn
- **Tam V. Nguyen, Assoc. Prof.** (Research advisor)
Founder of Vision and Mixed Reality Lab., University of Dayton, Dayton, OH 45469, United States
Contact: tamnguyen@udayton.edu; Website: vantam.github.io