Anh-Huy Dinh

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Education

University of Colorado Denver, USA 08/2024 – Present
Ph.D. Student in Engineering Science

- **Supervisor:** Assistant Prof. Nam Bui

Ho Chi Minh City University of Science, Vietnam 09/2018 – 11/2022
B.S. in Mathematics and Computer Science (Hornor Program)

- **GPA:** 9.21/10.0 (ranked 5th/800)
- **Thesis:** Survey Object Detection Methods for Drone Detection Problem (defended in 07/2022)
- **Supervisor:** Assoc. Prof. Binh Nguyen

Publications

OOKPIK - A Collection of Out-of-Context Image-Caption Pairs
*Kha-Luan Pham, Minh-Khoi Nguyen-Nhat, **Anh-Huy Dinh**, Quang-Tri Le, Manh-Thien Nguyen, Anh-Duy Tran, Minh-Triet Tran, Duc-Tien Dang-Nguyen*
The 30th International Conference on Multimedia Modeling (MMM 2024), January 29 - February 2, 2024 (Amsterdam, The Netherlands), DOI: https://doi.org/10.1007/978-3-031-53302-0_10, ISBN: 978-3-031-53301-3 (print), 978-3-031-53302-0 (online)

Drone Detection Using Deep Neural Networks
*Hoang Pham, **Anh-Huy Dinh**, Phat Thai, Trung Nguyen, Binh Nguyen*
The 21st International Conference on Intelligent Software Methodologies, Tools, and Techniques (SoMeT 2022), September 20-22, 2022 (KitaKyushu, Japan) (organized online), DOI: https://doi.org/10.3233/FAIA220280, ISBN: 978-1-64368-316-4 (print), 978-1-64368-317-1 (online)

Work Experience

Researcher 08/2024 – Present
at InsCy Lab, University of Colorado Denver, USA

- Supervisor: Assistant Prof. Nam Bui
- Working with EEG signal acquisition devices and machine learning or deep learning models to classify taste based on brain signals.
- Working with magnetic levitation systems, 3D printing, and controlling LED matrices to create a realistic free-glasses 3D display.

Research Internship (Remote) 07/2023 – 8/2024
at InsCy Lab, University of Colorado Denver, USA

- Supervisor: Assistant Prof. Nam Bui

- Developing a novel 3D video conferencing system that provides a user-friendly, immersive, glasses-free experience for multiple participants in the same meeting as if they were in the same place
- Proposing a novel solution for a low-cost 3D volumetric display using a levitated and rapidly rotating LED matrix driven by magnetic levitation

Research Internship 06/2021 – 01/2024

at AISIA Research Lab, Ho Chi Minh City University of Science, Vietnam

- Supervisors: Assoc. Prof. Duc-Tien Dang-Nguyen & Assoc. Prof. Binh Nguyen
- Manually collected and orginazed a dataset of out-of-context triplets {image, caption1, caption2} and propose a baseline model for the grand challenge on detecting Cheapfakes within the scope of The ACM Multimedia Systems Conference 2021 (MMSys'21).
- Introduced a dataset comprising of 545 images and 1090 real captions
- Released the scientific paper submitted to the MMM 2024 conference

Undergraduate Thesis Student 03/2021 – 09/2022

at AISIA Research Lab, Ho Chi Minh City Univeristy of Science, Vietnam

- Supervisor: Assoc. Prof. Binh Nguyen
- Researched object detection models (CNN, YOLO,...) for the problem of detecting drones in video data
- Combined YOLOv4 model with Seq-NMS post-processing and ByteTrack object tracking algorithm to improve detection performance.
- Released an scientific paper at the SoMeT 2022 conference
- Completed the undergraduate thesis with a score of 9.7/10.0

Research Interests

- Wearable Health Sensing Systems, Intelligent Embedded System, Smart Sensing Technologies
- Machine Learning, Deep Learning, 3D Machine Vision, Brain Signal Processing

Conferences Attended

03-06/08/2023	The summer school in Data Science 2023 held by Vietnam Institude for Advanced Study in Mathematics at Ho Chi Minh City University of Science
20/09/2022	The 21st International Conference on Intelligent Software Methodologies, Tools, and Techniques (SoMeT 2022) - participated remotely as a presenter for the paper published at the conference via the Zoom platform

Hornors & Awards

2022	Certificate of merit for a graduate with high distinction from the director of Vietnam National University Ho Chi Minh City
2019	A National Mathematics Development Program Scholarship for outstanding mathematics students awarded by the Vietnam Institute for Advanced Study in Mathematics
2018 – 2022	Promoting learning scholarship for the top 5% of students awarded by Ho Chi Minh City University of Science

Skills

Programmings:	Python, SQL, R, Matlab, C/C++, Javascript, LaTeX
Libraries:	Tensorflow, Pytorch, OpenCV, Numpy, Pandas, Matplotlib
Languages:	Vietnamese, English (IELTS 6.5)

Hobbies

- Playing badminton: Organized regular matches with a group of four friends, playing 2-3 times a week
- Photography:Passionate about capturing moments through photography, especially interested in portraits and landscapes
- Travel: Often save up for 1-2 yearly trips with friends and family to explore different culture and nature
- Playing puzzle games: Engage in solving puzzles during leisure time for mental stimulation