Bang-Dang Pham

Curriculum Vitae

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Dedicated to realizing my full potential as a science enthusiast, I embrace challenges with unwavering self-belief and wholehearted effort. As a machine learning model, I continuously strive to improve, seeking out opportunities for growth and self-refinement to discover optimal solutions.

🎓 Education

2018 – 2022   **Ho Chi Minh University of Science**, *Vietnam National University*, Ho Chi Minh City, Vietnam.
Excellent Bachelor degree of Advanced Program in Computer Science (APCS)
GPA: 3.88/4, Math 4.0/4.0 - **Top 1%** among graduated students

2015 – 2018   **High School for the Gifted**, *Vietnam National University*, Ho Chi Minh City, Vietnam.
Specialized in Informatics
Graduated with an excellent level (GPA: 3.95/4.0)

💼 Work Experience

July,22 – Present   **VinAI Research**, *AI Research Resident*.
As a Research Resident, I had the opportunity to engage in professional research alongside top-notch Professors and Research Scientists. During my tenure, I delved into the fields of Domain Adaptation and Image Restoration, particularly focusing on Deblurring. This experience has been instrumental in shaping my research career, as it provided insights into the substantial impact of generative models in practical applications on real devices

June,21 – June,22   **Katalon Inc.**, *AI Engineer*.
Pioneer in applying AI to Automation Testing Platform in Vietnam. Enrich the testing feature, especially Visual Testing, through deep technique in Computer Vision helping generating testcase faster and more accurate.

Jan,20 – June,20   **Cinnamon AI**, *AI Trainee in Deep Learning Bootcamp 2020*.
During the bootcamp, I surpassed over thousands competitors through three challenging stages, earning a scholarship with my work on topics like OCR, Forensics, and Gaussian Mixture Models. In the final stage, my team focused on advancing the state-of-the-art in Visual Question Answering (VQA), culminating in a live-streamed seminar on Cinnamon AI's Facebook page.

📄 Publications

2023   **Blur2Blur: Blur Conversion for Unsupervised Image Deblurring on Unknown Domains**
***Bang-Dang Pham**, Phong Tran, Anh Tran, Cuong Pham, Rang Nguyen, Minh Hoai*
- ○ **Under Review** at Computer Vision and Pattern Recognition Conference (**CVPR**) 2024
- ○ The paper introduces a novel framework to train **camera-specific image deblurring** algorithms by transforming challenging ***real blurry images into known blur-kernel*** only using unpaired data, simplifying the deblurring process and demonstrating superior performance in benchmarks.
- ○ Project Page

2023   **HyperCUT: Video Sequence from a Single Blurry Image using Unsupervised Ordering**
***Bang-Dang Pham**, Phong Tran*, Anh Tran, Cuong Pham, Rang Nguyen, Minh Hoai*
- ○ Published in Computer Vision and Pattern Recognition Conference (**CVPR**) 2023
- ○ Our work tackles **image-to-video deblurring**, resolving sequence order ambiguity using a self-supervised method. We also introduce a diverse real-image dataset (RB2V) for this task, covering domains like faces, hands, and streets.
- ○ Paper - Project Page - Poster

Projects & Competitions

2022   **SHREC'22: Open-Set 3D Object Retrieval using Multi-Modal Representation**
- Published in **Computers & Graphics Journal (Elsevier)** - **Q1**
- Engaged in a challenge focused on Open-Set problems for 3D objects with varied input types, we adopted Domain Adaptation tactics. This strategy led us to win the **First Prize** in Nearest Neighbour and NDCG@100 metrics in the retrieval session.

2021   **MediaEval 2021 - Visual Sentiment Analysis: A Natural Disaster Use-case**, Dec 16
- Published in *MediaEval 2021 Workshop Program* - First Author
- We propose an optimal solution for classifying emotions in images of natural disasters, incorporating metadata of interior features. This approach achieved top accuracy, earning us the **First prize** and the **Distinctive Mention Award**.
- Paper link: `https://2021.multimediaeval.com/paper33.pdf`

2021   **SHREC'21: Retrieval of 3D Cultural Heritage Objects**, Nov 08
- Accepted by *Eurographics Workshop on 3D Object Retrieval* (**3DOR** 2021)
- Published in **Computers & Graphics Journal (Elsevier)** - **Q1**
- We propose an Attention module combined with RingView transformation to process the temporal aspects of 3D objects, boosting the model's efficiency in recognizing objects with cultural and shape similarities.
- Paper link: `https://doi.org/10.1016/j.cag.2021.07.010`

2020   **MediaEval 2020 - Sports Video Classification**, Nov 15
- Published in *MediaEval 2020 Workshop Program*
- Through this challenge, we can learn how to process data that help model focusing on the main action of object inside. Moreover, ensemble model is useful in here when we try a lot of approaches to extract in various features.
- Paper link: `http://ceur-ws.org/Vol-2882/paper50.pdf`

🌐 Extra-curriculum Activities

Arts Activites, *Actor, MC, Voice Actor, etc.*.
I have involved in various movies, gameshows, and reality shows as part of extracurricular activities. Especially, *In 2018*:
- Pass the entrance examination of **Ho Chi Minh Academy of Theatre and Cinema** at an **Excellent level**.
- *Second Prize* at **National Master of Ceremonies Contest 2018.**

2020   **Euphoria Insider**, *Project Leader*.
Euphoria Insider is a non-profit youth organization that aspires to provide Vietnam's younger generation with authentic and necessary experiences to help them determine their career paths.

2019   **Project Sugar**, *Project Mentor*.
This is a **charitable organization** that provides the children with sustainable values such as *knowledge*, *spirits*, and *opportunities* in life; empowers volunteers to organize projects for the children.
I have responsibility for managing different kinds of positions and build plans and directions for activities of this organization.

🎗 Academic Achievements

2022   **First Prize** in **SHREC'22** *Track: Open-Set 3D Object Retrieval*

2021   **Distinctive Mention** in *MediaEval 2021 Workshop Program*

2021   **First Prize** in *Visual Sentiment Analysis* of **MediaEval 2021**

2021   **First Prize** in *3D Shape Retrieval Challenge 2021* **(SHREC'21)**

2020   **First Prize** in *Sports Video Classification* of **MediaEval 2020**

2020   **Excellent Young Research Award** at VANJ 2020 conference

2019   Top 3rd at **Emotion Recognition Competition 2019**

2019   Top 1st at **Zalo AI Hackathon 2019**

2019   **Second Prize** in *Informatics Olympic Contest for Student*

2018   **Second Prize** in *National Master of Ceremonies Contest*

2018   **Third Prize** in *Informatics Olympic Contest for Student*