Trong Thang Pham

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SUMMARY

I am a PhD student at the University of Arkansas, USA. My research interests are Computer Vision, Explainable AI, Medical Imaging Analysis, Multi-modal Deep Learning, and 3D human modeling. I have published in top conferences, including CVPR, ICRA and WACV. I have solid experience working with Python and Pytorch for my main research (3 years) and a basic background in other programming languages (C/C++, C#, etc.) for other applications of Computer Science (web/mobile development, cybersecurity, etc.).

EDUCATION

PhD Computer Science, GPA: 4.0/4.0 (*2023 - present*)
University of Arkansas, Fayetteville, AR, USA

M.S. Information and Communication Technology (*2021 - present*)
University of Science, VNU-HCM and John Von Neumann Institute, VNU-HCM

B.S. (Hon.) Computer Science, GPA: 9.06/10 (*2017 - 2021*)
University of Science, VNU-HCM

PUBLICATIONS

1. Yamazaki, Kashu, Taisei Hanyu, Khoa Vo, **Trong Thang Pham**, Minh Tran, Gianfranco Doretto, Anh Nguyen, and Ngan Le. "Open-Fusion: Real-time Open-Vocabulary 3D Mapping and Queryable Scene Representation." In ***(ICRA)* (Oral 2024).**

2. **Trong Thang Pham**, Jacob Brecheisen, Anh Nguyen, Hien Nguyen, and Ngan Le. "Decoding Radiologists Intense Focus for Accurate CXR Diagnoses: A Controllable and Interpretable AI System." In Proceedings of the IEEE/CVF Winter Conference on Applications of Computer Vision ***(WACV)*, 2024.**

3. Vo, Khoa, **Trong Thang Pham**, Kashu Yamazaki, Minh Tran, and Ngan Le. "DNA: Deformable Neural Articulations Network for Template-Free Dynamic 3D Human Reconstruction From Monocular RGB-D Video." In Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition, ***(CVPR)* 2023.**

4. Le, Nhat, **Trong Thang Pham**, Tuong Do, Erman Tjiputra, Quang D. Tran, and Anh Nguyen. "Music-Driven Group Choreography." In Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition ***(CVPR)* 2023.**

5. Nguyen, Tien-Phat, **Trong Thang Pham**, Tri Nguyen, Hieu Le, Dung Nguyen, Hau Lam, Phong Nguyen, Jennifer Fowler, Minh-Triet Tran, and Ngan Le. "EmbryosFormer: Deformable Transformer and Collaborative Encoding-Decoding for Embryos Stage Development Classification." In Proceedings of the IEEE/CVF Winter Conference on Applications of Computer Vision ***(WACV)*, 2023.**

6. Minh-Triet Tran, Tam V. Nguyen, Trung-Hieu Hoang, Trung-Nghia Le, Khac-Tuan Nguyen, Dat-Thanh Dinh, Thanh-An Nguyen, Hai-Dang Nguyen, Xuan-Nhat Hoang, **Trong Thang Pham** et al. iTASK - Intelligent Traffic Analysis Software Kit. In 2020 IEEE/CVF Conference On Computer Vision And Pattern Recognition Workshops *(CVPRW)* 2020.

7. Minh Pham, Hai-Tuan Ho-Nguyen, **Trong Thang Pham**, H. Tran, Hai-Dang Nguyen, and M. Tran. HCMUS at Pixel Privacy 2020: Quality Camouflage with Back Propagation and Image Enhancement. In *MediaEval*, 2020.

8. Hung V. Tran, **Trong Thang Pham**, Hai-Tuan Ho-Nguyen, Hoai-Lam Nguyen-Hy, Xuan-Vy Nguyen, Thang-Long Nguyen-Ho, and M. Tran. HCMUS at Pixel Privacy 2019: Scene Category Protection with Back Propagation and Image Enhancement. In *MediaEval*, 2019

WORKING EXPERIENCE

Research Assistant - University of Arkansas, Fayetteville (*1/2023 - present*)

- **Invention system for radiologist**: In charge of designing proof-of-concept, data, and baseline such that it helps the radiologist in reducing human error while increasing overall accuracy in reading CXR or CT scan. Published a paper in WACV 2024.
- **Cattle disease detection**: In charge of collecting data and developing baseline for detecting sickness in cattle, e.g. calf, in the farm from the input RGB or RGB-T (thermal) videos.
- **3D template-free reconstruction**: In charge of testing state-of-the-art methods for 3D template-free reconstruction with the input from RGB and RGB-D video.

AI Researcher - AIOZ, Singapore (*11/2021 - 11/2022*)

- **3D human motion reconstruction in the wild**: In charge of collecting, filtering, tuning semi-automatic process of generating motion and meshes. Published a paper, AIOZ-DANCE, in CVPR 2023.
- **AI Avatar**: In charge of suggesting, developing, and deploying methods for generating audio-driven 2D talking face animation and face reenactment.

ACCOMPLISHMENT

Doctoral Academy Fellowships award - University of Arkansas (2023)

Vietnam National Master/PhD Scholarship (VinIF 2021)

Top 2 Eureka 2021 - Vietnam National Research Contest. (2021)

Nominated as top 20 students contributed greatly to Vietnam AI Research (2021)