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)

Top 2 Eureka 2021 - Annual National Research Contest for Undergrad. (2021)

Third place at TextCaps Challenge, CVPR 2021 (2021)

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

Third prize of ASEAN Student Contest on Information Security (Qualifying Round 2020)

Rank 1st of the MediaEval Pixel Privacy 2019 and 2020