Phong Tran

Email: tranthephong33@gmail.com
website: https://p0lyfish.github.io

Profile

Date of Birth	17/10/2001
Place of Birth	Dak Lak Province, Vietnam
Citizenship	Vietnamese
Languages	English (IELTS 7.5) and Vietnamese

Education

- **Mohamed bin Zayed University of Artificial Intelligence** 2022 - present
  - PhD Candidate in Computer Vision
  - Working in Metaverse Lab under supervision of Prof. Hao Li
- **VNU University of Engineering and Technology** 2019 - 2022
  - B.S.E. in Computer Science
  - Graduated one year early
- **Nguyen Du High School for Gifted Students** 2016 - 2019
  - Informatics specialized student

Work Experience

- **Pinscreen** 7/2024 - 10/2024
  - Research Internship
- **VinAI Research** 8/2019 - 7/2022
  - VinAI Residency Internship

Professional Activities

- **Reviewers**
  - IEEE International Conference on Computer Vision and Pattern Recognition (CVPR) 2022, 2023, 2024.
  - European Conference on Computer Vision (ECCV) 2022, 2024.
  - International Conference on Computer Vision (ICCV) 2023.
  - IEEE/CVF Winter Conference on Applications of Computer Vision (WACV) 2022, 2023, 2025.
- **Teaching Assistant**
  - Teacher assistant for **3D Geometry Processing** course (CV804) at MBZUAI. Developed C/C++ assignments (3D Modeling, Rendering, Mesh Processing, OpenGL, OpenMesh). 2024 Spring Semester
  - Teacher assistant for **Advanced 3D Computer Vision** course (CV802) at MBZUAI. Developed Python assignments (Multi-View Stereo, 3D Reconstruction, Gaussian Splat Rendering). 2024 Fall Semester

Peer-reviewed jornal & conference papers

- **VOODOO XP: EXPRESSIVE ONE-SHOT HEAD REENACTMENT FOR VR TELEPRESENCE**

  Phong Tran, Egor Zakharov, Long-Nhat Ho, Liwen Hu, Adilbek Karmanov, Aviral Agarwal, McLean Goldwhite, Ariana Bermudez Venegas, Anh Tuan Tran, Hao Li

  ACM Transactions on Graphics, Proceedings of the 17th ACM SIGGRAPH Conference and Exhibition in Asia 2024, (SIGGRAPH Asia 2024), 12/2024

- **VOODOO 3D: VOLUMETRIC PORTRAIT DISENTANGLEMENT FOR ONLINE 3D HEAD REENACTMENT**

  Phong Tran, Egor Zakharov, Long-Nhat Ho, Anh Tuan Tran, Liwen Hu, Hao Li

  IEEE / CVF Computer Vision and Pattern Recognition Conference (CVPR 2024), 06/2024

- **BLUR2BLUR: BLUR CONVERSION FOR UNSUPERVISED IMAGE DEBLURRING ON UNKNOWN DOMAINS**

  Bang-Dang Pham, **Phong Tran**, Anh Tran, Cuong Pham, Rang Nguyen, Minh Hoai

  IEEE / CVF Computer Vision and Pattern Recognition Conference (CVPR 2024), 06/2024

- **HYPERCUT: VIDEO SEQUENCE FROM A SINGLE BLURRY IMAGE USING UNSUPERVISED ORDERING**

  Bang-Dang Pham*, **Phong Tran***, Anh Tran, Cuong Pham, Rang Nguyen, Minh Hoai

  * indicates equal contribution

  IEEE / CVF Computer Vision and Pattern Recognition Conference (CVPR 2023), 06/2023

- **SIMPLE TRANSFERABILITY ESTIMATION FOR REGRESSION TASKS**

  Cuong N. Nguyen, **Phong Tran**, Lam Si Tung Ho, Vu Dinh, Anh T. Tran, Tal Hassner, Cuong V. Nguyen *Proceedings of the Thirty-Ninth Conference on Uncertainty in Artificial Intelligence, PMLR 216:1510-1521, 2023.*

- **QC-STYLEGAN - QUALITY CONTROLLABLE IMAGE GENERATION AND MANIPULATION**

  Dat Viet Thanh Nguyen*, **Phong Tran***, Tan M. Dinh, Cuong Pham, Anh Tuan Tran

  * indicates equal contribution

  2022 conference on neural information processing systems (NeuRIPS 2022)

- **EXPLORING IMAGE DEBLURRING VIA ENCODED BLUR KERNEL SPACE**

  Phong Tran, Anh Tran, Quynh Phung, Minh Hoai

  IEEE / CVF Computer Vision and Pattern Recognition Conference (CVPR 2021), 06/2021

Technical Reports

- **BIOMETRY PARAMETER ESTIMATION ON ULTRASOUND IMAGES**

  Mohammad Areeb Qazi, **The Phong Tran**, and Mohammed Talha Alam

  Final project for course HC701, 08/2023

- **FINENET: FRAME INTERPOLATION AND ENHANCEMENT FOR FACE VIDEO DEBLURRING**

  Phong Tran, Anh Tran, Thao Nguyen, Minh Hoai

  arXiv:2103.00871, 03/2021

Demos & patents

- **VOODOO VR: ONE-SHOT NEURAL AVATARS FOR VIRTUAL REALITY**

  Phong Tran, Egor Zakharov, Long Nhat Ho, Adilbek Karmanov, Liwen Hu, Maksat Kengeskanov, McLean Goldwhite, Aviral Agarwal, Ariana Bermudez Venegas, Anh Tuan Tran, Otmar Hilliges, Hao Li

  SIGGRAPH 2023 Real-Time Live!

- **VIRTUAL TELEPRESENCE WITH HOLOGRAPHIC AVATAR**

  Phong Tran, Long Nhat Ho, Hao Li

  GITEX GLOBAL 2023, Dubai

- **FACE-AWARE OFFSET CALCULATION MODULE AND METHOD FOR FACIAL FRAME INTERPOLATION AND ENHANCEMENT AND A FACE VIDEO DEBLURRING SYSTEM AND METHOD USING THE SAMEFACE-AWARE OFFSET CALCULATION MODULE AND METHOD FOR FACIAL FRAME INTERPOLATION AND ENHANCEMENT AND A FACE VIDEO DEBLURRING SYSTEM AND METHOD USING THE SAME**

  Hung Hai Bui, Hoai Minh Nguyen, **Phong Tran**, Anh Tuan Tran, Thao Phuong Thi Nguyen

  US 20220067886 A1 · Issued Sep 1, 2020

Invited Talks

- **VOODOO VR: ONE-SHOT NEURAL AVATARS FOR VIRTUAL REALITY Speaker, Real-Time Round-Table: Up Close & Personal with Real-Time Live!**

  SIGGRAPH 2024, Denver, 07/2024

- **Deep Reinforcement Learning for High School Student**

  HUS High School for Gifted Students, 12/2022

- **VinAI CVPR 2021 Virtual Workshop**

  VinAI Research, Vietnam 11/2021

Softwares

- **PINSCREEN'S PINDUB.AI: PRODUCTION-GRADE AI LIP SYNC**

  Pindub is an AI-driven lip-syncing application that translates any talking video into a new language while keeping the lips synced with the translated audio. It offers superior quality compared to competitors, excelling in lip expressiveness and stability, even with extreme head poses.

  During my internship at Pinscreen, I worked on their new AI lip sync model for production-grade video generation.

Awards & Honors

- **Third, and first prizes in the Vietnamese National Olympiad in Informatics**
  - An annual programming contest about algorithms and programming held by the Ministry of Education and Training of Vietnam for Vietnamese high school students.
    Link to the contest
  - Ranked 1^{st}/600 in 2019.
- **Participating in many ACM-ICPC Contests**
  - ACM-ICPC is an annual multi-tiered competitive programming competition among the universities of the world. Link to the contest
  - Ranked 8^{th} and 6^{th} in Vietnam Regional ACM-ICPC Contest 2021 and 2022 respectively.
  - Ranked 21^{th} in Thailand Regional Contest 2020.
- **Graduate undergrad one year early**
  - First student in UET to graduate 1 year early.
- **RVN-Vallet Scholarship**

Technical Skills

- **Frameworks**
  - Pytorch, Pytorch Lightning, OpenGL, Open3D
  - Experienced with large-scale distributed AI model training with Slurm and Pytorch/Pytorch Lightning.
- **Programming Languages**
  - **C++**, Python, CUDA basics

References

- **Prof. Hao Li**

  CEO at PinScreen.

  Associate Professor (with Tenure), Computer Vision Department at MBZUAI.

  Email hao@hao-li.com
  Homepage https://www.hao-li.com/Hao_Li/Hao_Li_-_about_me.html

- **Dr. Egor Zakharov**

  Postdoc at ETH Zurich AIT lab.

  Email eozakharov@gmail.com
  Homepage https://egorzakharov.github.io/

- **Dr. Anh Tran Tuan**

  Research Scientist at VinAI Research.

  Email anstar1111@gmail.com
  Google Scholar https://scholar.google.com/citations?user=FYZ5ODQAAAAJ&hl=en

- **Prof. Minh Hoai Nguyen**

  Principal Research Scientist at VinAI Research.

  Professor at the University of Adelaide.

  Email mh.nguyen@adelaide.edu.au
  Homepage https://www.minhhoai.net/

- **Prof. Cuong Pham**

  Research Scientist at VinAI Research.

  Professor at the Posts and Telecommunications Institute of Technology.

  Email cuongpham.ptit@gmail.com
  Homepage https://sites.google.com/view/cuongpham/home