

TRUONG PHUOC HUNG

Ph.D. in Computer Vision & Pattern Recognition

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SHORT BIO

Dr. Truong is currently a postdoctoral researcher at Sejong University, Korea. He received the Ph.D. degree in Computer Science (CS) from Sejong University (Korea) in 2021, the M.Sc. degree and the B.Sc. degree in CS from the University of Science, VNU-HCMUS (Vietnam), in 2012 and 2009, respectively. He is a data scientist specializing in computer vision & pattern recognition. His research interests include Biometrics, Computer Vision, Image Analysis, Machine Learning, and Deep Learning.

EXPERIENCES

Postdoctoral Research fellow at Sejong University

📅 Sept. 2021 – Feb. 2022 📍 Seoul, South Korea

- Deep learning in face spoofing detection

Research associate at HCI lab, Sejong University

📅 2017 – 2021 📍 Seoul, South Korea

- Project topics: facial paralysis detection, face analysis, image analysis

Intern at National Institute of Informatics (NII)

📅 Aug 2016 – Dec 2016 📍 Tokyo, Japan

The research focused on Facial expressions recognition using Deep Neural Networks.

Lecturer at University of Science

📅 Sept 2010 – Present 📍 VNU-HCM, Ho Chi Minh, Vietnam

- Teaching courses: data structures & algorithms, pattern recognition, computer systems, and computer networking.
- Supervisor for 5 Bachelor theses (2014-2015).

PROJECTS

NRFK - National Research Foundation of Korea

📅 2017 – 2021 📍 South Korea

We have researched on face region analysis (facial landmarks detection by DB-ASM, measurement metrics, asymmetric features, features representation with non-parametric techniques LBP) for facial paralysis detection and facial recognition. In addition, we have studied on detecting the symmetry for image analysis problems based on Radon transforms.

Low-level features for facial recognition

📅 March 2015 – March 2016 📍 Ho Chi Minh, Vietnam

- Role: Principle investigator - PI (VNU-HCMUS)
- The project built optimal descriptors in the Manifold and Fisher Discriminant spaces. We have proposed two novel frameworks for facial representation and recognition.

AWARDS

🏛️ **Ph.D. research fellow (2017-2021)**
Sejong University, South Korea

🏆 **Recognition 2019**
Vietnam embassy in South Korea

📈 **Outstanding young lecturer (2014, 2015, 2016)**
at VNU-HCM

STRENGTHS

Hard-working Persuasive Research
Python Matlab C++
Tensorflow/Keras Sklearn OpenCV

EDUCATION

Ph.D. in Computer Vision & Pattern Recognition

Sejong University

📅 Mar 2017 - Aug 2021

Thesis title: Advanced Local Appearance-based Facial Features Representation

Thesis juries:

- Prof. Dong-il Han, Chairman of the jury, Sejong University
- Prof. Soo Mi Choi, Sejong University
- Prof. Young-Gab Kim, Sejong University
- Prof. Thanh Phuong NGUYEN, Toulon University (France)
- Prof. Yong-Guk Kim, Thesis advisor, Sejong University

M.Sc. in Computer Science

University of Science, VNU-HCM

📅 Sept 2010 - Sept 2012

Thesis title: Develop 2D-LDA scheme for Face Recognition

B.Sc. in Computer Science

University of Science, VNU-HCM

📅 Sept 2005 - Sept 2009

Thesis title: An Integration of facial geometric regions for face identification

PUBLICATIONS

Journal Articles

- **Truong, H.P.**, Nguyen, T.P., Kim, YG. (2021) Weighted statistical binary patterns for facial feature representation. *Applied Intelligence* (**IF = 5.086**), DOI: 10.1007/s10489-021-02477-1.
- **Truong, H.P.**, Vo, TMD., Le, T. (2016) Face recognition based on LDA in manifold subspace, *EAI. Endorsed Trans. on Context-aware Systems and Applications*, DOI: 10.4108/eai.2-5-2016.151209.
- Le, T.H., **Truong, H.P.**, Dang, K.D., Duong, D.A. (2011) Using Genetic Algorithms to Find Reliable Set of Coefficients for Face Recognition, *the Information and Telecommunication Journal (Vietnam)*, 6(26), 124-133.

Conference Proceedings

- **Truong, H.P.**, Kim, YG. Enhanced Line Local Binary Patterns (EL-LBP): An Efficient Image Representation for Face Recognition, *ACIVS (France)*, 2018, pp. 285-296 (**B ranked**).
- **Truong, H.P.**, Le, Q.M., Nguyen, T.L., Kim, YG. Facial landmarks detection for evaluating facial paralysis using a modern active shape model, in *HCI Korea (Korea)*, 2018, pp. 412-415.
- Vo, TMD., **Truong, H.P.**, Le T.H. Discriminative semi-supervised learning in manifold subspace for face recognition, *EAI ICCASA (Vietnam)*, 2015, pp. 243-253.
- Ly, QT., **Truong, PH.**, Le, HT. Graph K-means with lost cluster approach for nonlinear manifold clustering, *ICMLC (China)*, 2015, pp. 25-30 (**C ranked**).
- Le, H.Q., **Truong, H.P.**, Van, T.H., Le, T.H. A new pre-authentication protocol in Kerberos 5: biometric authentication, *RIVF (Vietnam)*, 2014, pp. 157-162.
- Le, DK.T., **Truong, H.P.**, Le, T.H. Facial expression recognition using statistical subspace, *ICIP (France)*, 2014, pp. 5981-5985 (**B ranked**).
- Vo, D.M., **Truong, H.P.**, Le, T.H. Robust facial expression recognition using Coefficient of Variation Bag of features, *NICS (Vietnam)*, 2014, pp. 448-457.
- Le, T.H., **Truong, H.P.**, Do, HT.T., Vo, D.M. On approaching 2D-FPCA technique to improve image representation in frequency domain, *SolCT (Vietnam)*, 2013, pp. 172-180.
- **Truong, H.P.**, Le, T.H. Fusion of bidirectional image matrices and 2D-LDA: an efficient approach for face recognition, *SolCT (Vietnam)*, 2012, pp. 142-148.

REFEREES

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