DAT HUYNH

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Education

Northeastern University   **Aug. 2017 – Oct. 2022**
Ph.D. in Computer Science: 3.97 / 4.00   *Boston, Massachusetts, USA*

Nanyang Technological University   **Aug. 2014 – Dec. 2014**
Exchanged Scholarship from Temasek Foundation: 5.00 / 5.00   *Singapore*

Advanced Program in Computer Science, University of Science   **Sep. 2012 – Nov. 2016**
B.S. in Computer Science (ranked 2nd in class 2012 with High Distinction): 3.95 / 4.00   *Ho Chi Minh City, Vietnam*

Engineering Skills

Languages: `Python` (Proficient); `C++`, `Java`, `JavaScript`, `MATLAB` (Prior Experience)
Technologies/Frameworks: Detectron, PyTorch, Tensorflow, Scikit-Learn, Numpy, Docker, AWS, GCP, OpenCV, Linux

Work Experience

Meta AI   **Oct. 2022 – Present**
Design Efficient and Effective Large Language Models for Large-scaled Production

J.P. Morgan AI Research   **Jun. 2022 – Sep. 2022**
Learnable Augmentation for Financial Time Series Prediction (1 patent).   *Mentors: Dr. E. Fons, Dr. S. Vyetrenko*

Adobe Research   **May. 2021 – Sep. 2021**
Large-scale visual segmentation for Adobe Stock search (2 patents).   *Mentors: Dr. J. Kuen, Dr. Z. Lin, Dr. J. Gu*

MCADS Lab, Northeastern University   **Aug. 2017 – Present**
Research Assistant   *Advisor: Prof. E. Elhamifar*

- **Image Recognition**:
  - ▷ Developed a shared-attention model to recognize unseen labels and scaled to 7000 seen and 400 unseen labels.
  - ▷ Developed a dense-attention model to recognize new fine-grained classes with 4% improvement on fashion recognition.
  - ▷ Developed a semi-supervised model to learn from 9M partially labeled images and improved 2% performance.
- **Video Understanding**:   Developed a self-supervised method to classify and summarize complex actions in videos from YouTube without human segmentation annotations and gained 3% improvement on 18 activities in 2.7K videos.
- **Action Recognition**:   Developed a compositional method to localize/classify unseen human-object interactions based on spatial relations and significantly improved performances by 2.6%.

Selected Research Projects – (Full Publications: 🎓 Google Scholar)

Open-Vocabulary Instance Segmentation   **CVPR22**
*Dat Huynh, **Adobe:** {Jason Kuen, Zhe Lin, Jiuxiang Gu}, Ehsan Elhamifar*   *github*

Interaction Compass: Zero-Shot Learning of Human-Object Interactions   **ICCV21**
Dat Huynh, Ehsan Elhamifar   *github*

Compositional Zero-Shot Learning via Fine-Grained Dense Feature Composition   **NeurIPS20**
Dat Huynh, Ehsan Elhamifar   *github*

A Shared Multi-Attention Framework for Multi-Label Zero-Shot Learning   (Top 5% Paper) **CVPR20**
Dat Huynh, Ehsan Elhamifar   *github*

Fine-Grained Generalized Zero-Shot Learning via Dense Attribute-Based Attention   **CVPR20**
Dat Huynh, Ehsan Elhamifar   *github*

Self-Supervised Multi-Task Procedure Learning from Instructional Videos   **ECCV20**
Ehsan Elhamifar, Dat Huynh   *github*

Achievements

J.P. Morgan Fellowship   **2021**
- $100k funding for A.I. research in financial applications (awarded to 15 individuals worldwide).

Adobe Code Quality Jam - Research Grand Champion Award   **Aug. 2021**
- Selected by Adobe Research Panel for best software engineering practices and effective collaboration.

Northeastern Graduate Fellowship   **2017 – 2018**
- $70k stipend for incoming PhD students.