

Giang Nguyen

Computer Science ◊ Auburn University, AL, USA

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EDUCATION

Auburn University, AL
Ph.D. in Computer Science

Aug 2021 - present
Advisors: [Anh Nguyen](#)

KAIST - Korea Advanced Institute of Science and Technology, South Korea
M.Sc. in Computer Science
Thesis: *Overcoming Catastrophic Forgetting by Deep Visualization*

2018 - 2020
Advisor: [Daeyoung Kim](#)

Hanoi University of Science and Technology, Vietnam
B.Eng. in Electronics and Telecommunications

2011 - 2016

WORK EXPERIENCES

Anh Nguyen Laboratory, Auburn University
Research Assistant

Aug 2021 - present
AL, USA

- Doing research on both *Explainable AI & Computer Vision*, deeply interested in human-AI collaboration via machine explanations. One paper published at NeurIPS2022 and a poster at CVPRW2022.

Data Engineering & Analytics Laboratory, KAIST
Graduate AI Researcher

Sept 2020 - Feb 2021
South Korea

- Conducting research to evaluate the effectiveness of machine explanations on humans and showing the shortcoming of existing evaluation metrics. One paper published at NeurIPS2021.

Data Engineering & Analytics Laboratory, KAIST
Research Assistant

Aug 2018 - Aug 2020
South Korea

- One of 20 finalists at [Qualcomm-KAIST Innovation Awards 2019](#).
- Conducting computer vision research and publishing 3 papers at ICPR and ICONIP.

G-Innovations
Application Software Engineer

Feb 2018 - Jul 2018
Hanoi

- Optimizing minutiae detection algorithm running time by 80% and memory usage by 95% on AVR32.
- Building a commercial chatbot using AIML and Java to interact with customers for loan applications.

DASAN Zhong Solutions Vietnam - DZS Vietnam
Linux Embedded Software Engineer

Jul 2016 - Jan 2018
Hanoi

- One of 3 best interns (among 12) in Fall 2016 of DZS.
- Implementing network protocols on embedded network devices (e.g. switches, routers) by C/C++.

PUBLICATIONS

https://scholar.google.com/citations?user=l_kfXecAAAAJ

Peer-reviewed Papers and Preprints

- Taesiri, M., [Nguyen, G.](#), Habchi, S., Bezemer CP., Nguyen, A., 2023. **Zoom is what you need: An empirical study of the power of zoom and spatial biases in image classification**. arXiv preprint. [[pdf](#)]

- Pham, V. H., *Pham, T. M., *Nguyen, G., Nguyen, L., & Dinh, D., 2023. **Semi-supervised Neural Machine Translation with Consistency Regularization for Low-Resource Languages**. arXiv preprint. [pdf]
- *Nguyen, G., *Taesiri, M., Nguyen, A., 2022. **Visual correspondence-based explanations improve AI robustness and human-AI team accuracy**. (CVPR2022-XAI4CV, NeurIPS2022). [poster] [pdf]
- * denotes equal contributions.
- Nguyen, G., Kim, D. and Nguyen, A., 2021. **The effectiveness of feature attribution methods and its correlation with automatic evaluation scores**. (NeurIPS2021-WHMD, NeurIPS2021). [pdf]
- Nguyen G., Chen S., Jun T.J., Kim D., 2021. **Explaining How Deep Neural Networks Forget by Deep Visualization**. (ICPR2020-EDLAI). [pdf]
- Tran, T.Q., Nguyen, G.V. and Kim, D., 2021. **Simple Multi-Resolution Representation Learning for Human Pose Estimation**. (ICPR2020). [pdf]
- Kim, H., Jun, T.J., Nguyen, G. and Kim, D., 2019. **Bidirectional LSTM with MFCC Feature Extraction for Sleep Arousal Detection in Multi-channel Signal Data**. (ICONIP2019). [pdf]
- Nguyen, G., Jun, T. J., Tran, T., Yalaw, T., & Kim, D., 2019. **ContCap: A scalable framework for continual image captioning**. arXiv preprint. [pdf]

Book translations

- 2020: Translation of *Interpretable Machine Learning: A Guide for Making Black Box Models Explainable* by Christoph Molnar to Vietnamese. Both pdf and tex version can be found [here](#).

Theses

- 2020: Nguyen G (2020). Overcoming Catastrophic Forgetting by XAI. Master thesis. [pdf]

AWARDS AND ACTIVITIES

- 2014 & 2015: University scholarship for excellent students of HUST: \$200
- 2015: 1st Class award of Texas Instruments Innovation Challenge Vietnam – North Region: \$800
- 2016: DASAN Zhong Solutions scholarship for HUST excellent students: \$2500
- 2018: Korea Advanced Institute of Science and Technology (KAIST), MS scholarship: \$20.000/year
- 2021: Presidential Graduate Research Fellowship at Auburn University, US: \$30.000/year
- 2021: I serve as a PC (reviewer) at NeurIPS 2021 workshop.
- 2022: Registration award at CVPR 2022, New Orleans, LA, US: \$550.
- 2022: I serve as a PC (reviewer) at ICLR, AACL, and AISTATS 2023.
- 2023: I serve as a PC (reviewer) at CVPR, NeurIPS, and ICCV 2023.
- 2023: I got the Diversity Graduate Student Support Award at Auburn University: \$1000. [cert](#)

INVITED TALKS

- 04/2023: *Towards Useful Visual XAI Methods for Human-AI Collaboration*, [L3S Research Center](#), Delft University of Technology (TU Delft), Netherlands (online). [slide](#).
- 04/2023: *Use Cases of Machine Explanations in the Real World*, [Explainable Artificial Intelligence - COMP 5970/6970](#), Computer Science department, Auburn University, US.
- 06/2020: *Explaining How Deep Neural Networks Forget by Deep Visualization*, [ContinualAI](#) (online). [video](#).