HUY VU

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Education

York University — Toronto, Canada
Master of Applied Science in Electrical and Computer Engineering — Expected Apr. 2021
Cumulative GPA: 3.95/4.00

- Relevant Coursework: Machine Learning Theory, Digital Image Processing, Computer Vision

University of Information Technology — Ho Chi Minh, Vietnam
Bachelor of Engineering in Computer Engineering — Aug. 2013 – Feb. 2018
Cumulative GPA: 3.5/4.00

- Awards: Sunflower Mission Engineering and Technology Scholarship (2015)

Experience

Research Assistant — Aug. 2019 – Present
York University, Department of Electrical Engineering and Computer Science — Toronto, Canada

- Research Topic: image restoration with deep learning and graph signal processing.
- Several math topics were involved, e.g., convex optimization, spectral analysis, approximation, etc.
- Implemented and analyzed image denoising algorithms. Including BM3D, DnCNN.

Teaching Assistant — Aug. 2019 – Present
York University, Department of Electrical Engineering and Computer Science — Toronto, Canada

- Gave lecture on Probability to a thirty-student class.
- Were a MATLAB instructor of a third-year Probability course.

Data Scientist — Mar. 2018 – May. 2019
FPT Telecom — Ho Chi Minh, Vietnam

- Analyzed billions rows of network infrastructure logs to detect network issues using clustering and classification algorithms.
- Achieved high precision rate at 93 percent while the initial expectation was 60 percent.
- Communicated with other departments to resolve detected network issues.

Machine Learning Research Intern — Aug. 2017 – Dec. 2017
KMS Technology, Inc. — Ho Chi Minh, Vietnam

- Built NLP models for understanding resumes and matching them with job descriptions.
- Built knowledge graph (with neo4j) for IT recruitment domain.

Projects

Motorbike image generation using LSGAN | *Python, PyTorch, HTML, Selenium* — Spring 2020

- Built a crawler to automatically download motorbike images on the Internet.
- Trained a Least Squares Generative Adversarial Networks to generate motorbike images.

PyTorch Implementation of DeepGLR | *Python, PyTorch* — Fall 2019

- Implemented a graph neural network denoising algorithm (DeepGLR) on PyTorch.
- Performance optimization with various techniques such as vectorization, multiprocessing.
- The project was selected for The GitHub Arctic Code Vault program.

Diabetic Retinopathy Classification using Deep Learning Model | *Python, Tensorflow, Electronjs* — Jan. 2018

- Trained state-of-the-art deep learning model (Inception-v3) to classify diabetes stages based on retina images.
- Deployed as a desktop application via Electronjs.

Publication

H. Vu, G. Cheung, Y. C. Eldar, "Unrolling of Deep Graph Total Variation for Image Denoising," (submitted to) IEEE International Conference on Acoustics, Speech and Signal Processing, June 2021

Skills

Programming: Python, MATLAB, C++, SQL, LaTeX