Huy Anh Nguyen

Master student in Computer Science
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EDUCATION

Stony Brook University, New York   2/2021 - 5/2023 (expected)
M.S in Computer Science (Data Science Concentration)
- CGPA: 3.87/4.0 - Teaching Assistant in CSE353 Machine Learning
- Member of **Attentional Toolkit Research Group - Computer Vision Lab**
- Courses: Data Science, Machine Learning, Natural Language Processing, Computer Vision, Big Data Analytics, Robotics

Hanoi University of Science and Technology, Hanoi, Vietnam   8/2013 - 8/2018
B.S (Hons) in Mathematics and Informatics
- CGPA: 3.24/4.0 - Ranking 9/47 (Department)

SKILLS

Languages	Python, SQL, Java, JavaScript, HTML, CSS
Tools/ Frameworks	PyTorch, TensorFlow/Keras, Numpy, Pandas, Scikit-learn, Git
	Hadoop/Spark, FastAPI, ONNX, Docker

WORK EXPERIENCES

Computer Vision Engineer Intern | PIXTA Inc, Hanoi, Vietnam   6/2021 - 8/2021
Japanese Image Captioning
- Researched and developed models to generate captions in Japanese from stock images.
- Developed a model (BertCap with ResNeST backbone) which was later chosen to integrate into production with less than **0.65s** per image inference time using ONNX.

Machine Learning Engineer | CMC Institute of Science and Technology, Hanoi, Vietnam   6/2018 - 5/2019
Harmonized System Code Classification   12/2019 - 5/2020
- Formed the problem and identified needed dataset by working with risk management experts in the Vietnam Customs Department (VCD).
- Developed ETL process and experimented EDA for over 2TB of text data from VCD's databases. Extracted datasets of Harmonized System Code (HTS Code) in high fraud rate ports.
- Developed a hierarchical classifier to predict the HS Code from goods' descriptions in Vietnamese. This classifier served to identify fraudulent activities. Our model achieved **68.9%** accuracy on full HS Code and over **95%** on chapter and heading codes. This work led to a research paper (Paper code).
- Developed a web application using the model on backend with Flask.

Research Consultant | WorldQuant LLC , Hanoi, Vietnam   5/2019 - 9/2019
- Research to create alpha, an algorithmic model to predict stock market movement, using 25 datasets.
- Submitted over **540** alphas in the last three months.
- Gold medal in WorldQuant Challenge (global - 2018)

RESEARCH EXPERIENCES

Visual Attention: Toward an Attentional Toolkit, New York   1/2022 - Present
Supervisor Associate Prof. Minh Hoai Nguyen
- Develop software for data collection and aggregation from three video streams with synchronization (less than 120ms on all streams).
- Read and experiment hand-detection techniques on egocentric video datasets.

Fuzzy Logic Research Group, Hanoi, Vietnam   1/2018 - 9/2018
Supervisor Prof. Dr. Sc. Bui Cong Cuong
- Read and proved De Morgan triples from supervisor's papers and constructed new classes of picture fuzzy negation and triples.
- Presented at National Mathematical Conference (2018).

PUBLICATION & PRESENTATION

- Nguyen Thanh Binh, **Huy Anh Nguyen**, Pham Ngoc Linh, Nguyen Linh Giang, Tran Ngoc Thang, *Attentive RNN for HS Code Hierarchy Classification on Vietnamese Goods Declaration*, International Conference on Intelligent System and Network (ICISN), 2021 (Springer Paper).
- **Nguyen Huy Anh**, Roan Thi Ngan, Bui Cong Cuong, *Some new classes of Picture Fuzzy negation and De Morgan triples, 9th Vietnam Mathematical Congress*, Oral presentation in Discrete mathematics section, Nha Trang, Vietnam, 2018.