Khoa Ngo

ntheanhkhoa@gmail.com | (+1) 518-986-9793| 807 Union St – Schenectady – NY – USA

EDUCATION   Union College – Schenectady – New York

Bachelor of Science, Double Major Math and Computer Science

Tech and Computer Skills

Languages: Python, R, Java, Javascript, Swift, C#, C++, Scheme, Assembly

Technologies: Tensorflow, Pytorch, Keras, Numpy, Matplotlib, Onnx, TensorRT, ReactJS, Flask, Express, Docker, Git

Relevant Coursework

Artificial Intelligence, Evolutionary Computing, Data Structure, Deep Learning Specialization, Big Data Analysis

RESEARCH EXPERIENCE

TurtleAI – Image Replicating Turtle

● Wrote an extension of the turtle library by adding the ability for turtle to replicate an input image.

● Trained a Neuroevolution of augmenting Topologies network, enabling the turtle to make its own decisions

Agent-Based Artificial Intelligence Project

● Used Alpha –Beta Pruning to create an AI that excels in Konane – a Hawaiian checker game.

● Wrote Q – Learning from scratch that solved OpenAI Gym Level.

● Reimplemented and reproduced: The Royal Road for Genetic Algorithms: Fitness Landscapes and GA Performance

● Wrote popular search-based methods from scratch: DFS, BFS, State-based Search, Tree Search, A* heuristic

Deep Learning Book Translation

Contributed to the project "Machine Learning Yearning" and "Dive Deep into DL" into Vietnamese

TripAdvisor User/Hotel Matching

●Built a machine learning model to match users/ hotels based on user's interaction with TripAdvisor's datasets.

● Tested Naïve Bayes, Decision Tree, SVM and Neural Network with k-fold validation in R.

WORKING EXPERIENCE

Research Intern, Dr. David Tran Laboratory of Quantitative Cancer   **November 2021 – January 2022**

● Preprocessing, crawling terabytes of genetic data for transcription factor binding model

● Developing transcription factor binding model to improve Netzen's ability to detect cancer genes

Applied Scientist, Computer Vision Research Intern, Vinbrain   **January 2021 – April 2022**

● Performed and researched different deep learning architectures for action recognition on harassment and violence

● In charge of most detection task such as license plates, id, signature, and stamp detection

● Optimized model by pruning, quantizing, knowledge distillation to, reducing models' inference time b

● Crawled, annotated, and labelled real world data.

Computer Vision Research Intern, Mobifone Research& Development Lab   **September 2020 – January 2021**

●Trained face recognition model and built pipeline to take employee attendance and monitor customer in real time

Research and Development Intern, ICOMM Media & Tech Jsc   **May 2020 – September 2020**

● Researched several deep learning models for person re-identification and action recognition

● Crawled data in the wild and Augment, generated Data for face-recognition software

Deep Learning Apprentice, *Infore Technology*   **Feb 2018 - Jul 2018**

● Learned Deep Learning Techniques. Collected Data for the company's speech recognition software

Tutor, *International Mathematic Competition Vietnam Team*   **May 2017 – August 2017**

● Taught number theory to Vietnam junior and senior team of International Mathematic Competition 2017.

AWARD & COMPETITION

● Distinguished Performance Rochester Mathematic Olympiad	**2019**
● Top 15% William Lowell Putnam Mathematical Competition.	**2018**
● Champion of Hanoi Codeathon. Forth place of Vietnam Mathematics Olympiad (VMO).	**2017**
● Silver Prize of Hanoi Math Modeling Contest. First Prize of Hanoi Mathematics Olympiad.	**2016**
● Gold Prize of Hanoi Math Modeling Contest	**2015**