



Tuan-Dat Le

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Computer scientist looking for a position at a R&D lab, where I can apply my knowledge about Computer vision, Reinforcement learning to support internal and external communication

Education

- VNUHCM - University of Science
- BCs in Computer Science, Honor program
- GPA: 8.5/10

Skills

- Programming languages: Python, C++
- Framework: PyTorch
- Research: Computer vision, Reinforcement learning
- Soft skills: Critical thinking, Creativity, Emotional intelligence, Adoptability

Projects

- Zalo AI Challenge - Traffic Sign Detection — Leader — 1/11/2020 - 1/12/2020
 - Traffic Sign Detection is an important component in autonomous systems such as drones and self-driving cars. The detection module must be fast and accurate because subsequent decisions are planned and executed based on the outputs of this system.
 - Team size: 4 member
 - Responsibility:
 - * Analyze the training dataset and choose model to work with this problem. Building the network model to fit the dataset.
 - Tech stacks:
 - * YOLOv4
- Cart-pole Game — Leader — 20/08/2020 - 20/9/2020
 - Cartpole - known also as an Inverted Pendulum is a pendulum with a center of gravity above its pivot point. It's unstable, but can be controlled by moving the pivot point under the center of mass. The goal is to keep the cartpole balanced by applying appropriate forces to a pivot point.
 - Team size: 1 member

- Responsibility:
 - * Creating an agent that is capable of learning through trial and error and ultimately solving the cartpole problem.
- Tech stacks:
 - * Deep Q-learning
 - * Deep Neural Network
 - * Buffer replay in DQN
- AIC HCMC — Member — 10/07/2020 - 05/09/2020
 - There are four types of vehicles in the road. In this project, the mission is counting the exact number of each type vehicles moving in the specific direction.
 - Team size: 5 members
 - Responsibility:
 - * Labeling the objects in videos of the dataset.
 - * Training model to detect the vehicles occurring in the videos
 - Tech stacks:
 - * Using YOLOv4 model to detect the vehicles appearing in the videos.
 - * Using LabelImg to label the vehicles in the dataset.
- Self-driving Car — Leader — 20/01/2020 - 28/04/2020
 - There is a car equipped with 5 ultra-sonic sensors to measure the distance between the car and walls on two side of road. The mission is making the car autonomously run to the destination.
 - Team size: 2 member
 - Responsibility:
 - * Determining the algorithm and model used to solve the problem
 - * Building the neural network
 - * Tuning the hyperparameters so that the weights of the model can converge
 - Tech stacks:
 - * Using genetic algorithm to optimize the weights of the model
 - * Using a neural network with 3 fully connected layers.
 - Link: github.com/ledat2110/Self-driving-Car-using-Neural-Network
- Image classification — Leader — 15/01/2020 - 20/03/2020
 - This is a school project. The mission is building a model to classify the class of the image in the dataset. Each image contains an object with specific class. There are 10 classes at all.
 - Team size: 1 member
 - Responsibility:
 - * Building a CNNs, which is capable of classifying the objects with the accuracy above 95%.
 - Tech stacks:
 - * Convolutional neural network
 - Link: github.com/ledat2110/cs231n

Achivement

- Top 18 — Zalo AI Challenge - Traffic Sign Detection
- Top 35 — AIC HCMC 2020
- Top 27 — VNUHCM - University of Science Challenge 2020
- Top 27 — VNUHCM - University of Science Challenge 2019