DUY - THANH CAO

PERSONAL INFORMATION

Full name: Duy – Thanh Cao

Day of birth: 16 – 10 – 1993

Address: Le Thanh Apartment Building, 173 An Duong Vuong,

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MY OBJECTIVE

I want to use the knowledge of machine learning to help automate human tasks in every aspect of life.

RESEARCH INTERESTS

Algorithm, simulation and optimization

Computer vision and computer graphics

Machine learning and deep learning

High performance and scalable system

WORK EXPERIENCE

ZMP Vietnam (2021 - Now)

Model Predictive Control (2024 – Now)
- Add constraint for robot's head inside the drivable area.

Path Generation service (2021 – 2024)
- Build API to store map data that supports for generating global path for autonomous robot.
- Build high performance module to generate reference map files (similar to Google maps).
- Add module to generate Euclidean Distance Transform in parallel.
- Mainly using C++, python, rust,…

Hiip – Influencer Marketing Platform (2018 – 2021)

Data Engineer
- Build scalable crawler system to gather data of million users from Social Network: Facebook, Instagram, Youtube and Blog
- Integrating Machine Learning module to analyze age, gender and interest of users
- Calculate fan demogrpahic of each influencer
- Gather and analyze sentiment, relevant comments of posts on social network
- Build API to get, push influencer to track their information
- Technology: Tensorflow, MongoDB, Python, RabbitMQ

EDUCATION BACKGROUND

Internship at National Institute of Informatics (2017 - 2018)
Faculty: Computer Vision
Field of expertise: Object Classification and Novelty Detection

Bachelor of Computer Engineer, Honor Program, ABET Accredited (2016)
Ho Chi Minh University of Technology, Ho Chi Minh City, Vietnamese
Faculty: Computer Science and Engineering
Field of expertise: Computer Vision and Machine Learning
GPA: 8.46 / 10, ranked 9 in class

Graduated from Ly Tu Trong High School for the gifted (2011)
Can Tho City, Vietnam
Class of computer science
2011: Archieve 3rd award of National Gifted contest.

RESEARCH EXPERIENCE

Objects Tracking   2016 – 2018
Advance computing Lab – HCM University of Technology, HCM City, Vietnam
+ Extract rich features from image using VGG16 model (transfer learning)
+ Apply deep learning (LSTM model) to predict position of object in video

Detect Face and Estimate Head's Pose in Video   2015 – 2016
HCM University of Technology, HCM City, Vietnam – Final Thesis Bachelor
+ Apply AlexNet to detect face in image
+ Using classification to estimate head's pose[1]

Human Detection   2015 - 1016
HCM University of Technology, HCM City, Vietnam
+ Study image processing and machine learning
+ Using image processing to extract feature from image (HOG feature) and use that feature to classify if a person exist in the image.

TEACHING EXPERIENCE

Teaching assistance – Computer Graphics – **HCM University of Technology**   2016 – 2017

Teaching assistance – Data Structure and Algorithm - **HCM University of Technology** 2016

Duties:

Helping students in their studies

Design and implement exercises

Organize and distribute learning resources

Observed student's performance as directed

Assisted in grading exam papers, assignments and homeworks

TECHNICAL & PERSONAL SKILLS

Technical Skills:
+ Extensive knowledge in Computer Vision and Machine Learning
+ Experienced in programming languages of C++, Python, Matlab
+ Experienced in working with MongoDB, MySQL, RabbitMQ
+ Experienced in working with machine learning frameworks: theano, caffe, tensorflow

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[1] - https://www.youtube.com/watch?v=sF17r2FJbhM

Personal Skills:
+ Good English communication (TOEIC Score: 715)
+ Hard-working, responsible, strong team-working and presentation skills.