# VAN-TU VO

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### **EDUCATION**

Pukyong National University

September 2016 - February 2019

Master

Overall GPA: 4.37/4.5

Department of Computer Engineering

Thesis: High Dynamic Range Video Synthesis using Superpixel Based - Illumination Invariant Motion Esti-

mation

Adviser: Professor Chul Lee

Hanoi University of Science and Technology

September 2011 - July 2016

Overall GPA: 3.27/4

Bachelor

Thesis: Simulating and Designing the Smart Solar System

Adviser: Professor Hoai Linh Tran

Department of Electrical Engineering

TECHNICAL STRENGTHS

C/C++, MATLAB, Python, HTML, CSS Computer Languages

Software & Tools Visual Studio Code, LaTeX, Conda, Docker, Jupyter Notebook

OpenCV, Tensorflow, Keras, Pytorch, Numpy, Matplotlib Library

### RESEARCH PREFERENCES

· Low-light Image Enhancement and High dynamic range Imaging.

· Object Detection and Recognition.

### **EXPERIENCE**

Inhandplus Inc. March 2020 - present

AI Developer

- · Using Tensorflow Object Detection API for detecting the medication behavior of the patients.
- · Design LSTM network to serialize the data and analyze the medication behavior.
- · Deploy the trained model to server using Django.

Tricubics Inc. February 2019 - March 2020

Research Engineer

- · Develop segmentation algorithm using deep learning to generate data.
- · Design and optimize deep learning network for classification tasks.
- · Analyze and clean data for training deep learning models

### Computational Imaging Laboratory

September 2016 - February 2019

Research Assistant

- · Research and develop algorithm for synthesizing high dynamic range videos
- · Research and develop algorithm for HDR10 contents
- · Develop algorithm to detect pedestrian in tunnel

Pix Moving April 2018 - May 2018

Computer Vision Internship

· Develop pedestrian detection system for self-driving car

### **PUBLICATIONS**

- Tu Van Vo and Chul Lee, "Robust HDR video synthesis using superpixel-based illumina- tion invariant motion estimation," in Proc. IEEE International Conference on Consumer Electronics-Asia (ICCE-Asia), Jeju, Korea, Jun. 2018, pp. 245–246.
- Tu Van Vo and Chul Lee, "High Dynamic Range Video Synthesis Using Superpixel-Based Illuminance-Invariant Motion Estimation," in IEEE Access, vol. 8, pp. 24576-24587, 2020.

### RELEVANT COURSES

### **Core Courses**

Image Processing
Artificial Intelligence
Neural Network and Deep learning
Computer Vision

Advanced Image Processing

# PROJECTS

# **Core Projects**

High Dynamic Range Video Synthesis (at CILab) High Dynamic Range Video Tonemapping (at CILab) Pedestrian Detection for Self Driving Car (at PIXMoving) Object (bottles, cans) Classification (at Tricubics) Tensorflow Object Detection and Action Recognition

### Online Courses

Computer Vision Nanodegree DeepLearning.AI TensorFlow Developer AI and Edge Computing Deep learning Specialization Self Driving Car Nanodegree

# **Self-Done Projects**

Deep HDR Imaging via A Non-Local Network Vision Transformer Face Detection and Recognition Donkey Car Zero-DCE TF Recovering High Dynamic Range Radiance Maps from

### OTHERS

## Languages

- · English (IELTS 7.5)
- · Vietnamese
- · Korean

# **Obtained Scholarships**

- · Hanoi University of Science and Technology scholarship for excellent students
- · Coteccons scholarships for out-performed students
- · Computer Vision Nanodegree Udacity
- · AI and Edge Computing Udacity
- · Research Assistant Scholarship Pukyong National University
- $\cdot$  Top 5 in MOAI 2020 Body Morphometry AI Segmentation Online Challenge