Toan Khoa Nguyen

CONTACT INFORMATION	Phone: (+866) 974 063 466 Email: toankhoabk@gmail.com Homepage: www.linkedin.com/in/toankhoa GitHub: github.com/ntkhoa95
EDUCATION	**National Taiwan University of Science and Technology**, Taipei, Taiwan 2020 - Present Master of Electrical Engineering ● Research Interest: Image Processing, Computer Vision, Image Segmentation ● Advisor: Professor Chung-Hsien Kuo and Professor Shun-Feng Su ● GPA: **4.27/4.3** **Ho Chi Minh University of Technology**, HCMc, Vietnam 2013 - 2018 Bachelor of Automotive Engineering
RESEARCH EXPERIENCE	**Autonomous & Soft Robotics Laboratory**, National Taiwan University 2020 - Present ● Research Topics: Segmentation technologies for Autonomous mobile robots ● Skilled gained: Developing a self-supervised learning method for drivable area and road anomalies segmentation. Providing an automatic system to generate segmentation labels for drivable area and road obstacles. Training the self-supervised labels with semantic segmentation neural networks to perform robust prediction in real-time on mobile robots.
RESEARCH INTERESTS	My current research focuses mainly on Semantic Segmentation for applications on mobile robots, in which I utilize various techniques from traditional image processing to taking the advantages of deep learning methods to develop an efficient automatic labeling method. In addition, I used different attention-based methods to enrich the feature map in fusing the RGB-D input data to enhance the performance of the automatic labeling system.
PUBLICATIONS	● Minh-Quang Tran, Meng-Kun Liu, Quoc-Viet Tran, **Toan-Khoa Nguyen**. Effective Fault Diagnosis Based on Wavelet and Convolutional Attention Neural Network for Induction Motors. ○ *IEEE Transactions on Instrumentations and Measurement, Volume 71* ● Ming-Hong Hsu, Phuc Thanh-Thien Nguyen, Dai-Dong Nguyen, **Toan-Khoa Nguyen**, Chung-Hsien Kuo. Fabrication and Image Servo Tracking Study of a Continuum Robot Prototype. ○ *International Journal of iRobotics, 2021, Volume 4, No. 2*
HONORS AND AWARDS	● Phase 1 Finalist, OpenCV AI competition 2021 ● Full Scholarship of National Taiwan University of Science and Technology 2020
OTHER ACTIVITIES	● **Teaching Assistant** at Industrial Internet of Things Programming and Practice Course ○ Instructor: Professor Minh-Quang Tran ● **Teaching Assistant** at Fundamental of Self-Driving Cars Course ○ Instructor: Professor Shu-Hao Liang
TECHNICAL SKILLS	● *System:* Windows, Linux ● *Programming Languages:* Python, MATLAB ● *Framework:* OpenCV, Tensorflow, Pytorch, Git

LANGUAGES	• Vietnamese: Native • English: Proficient (IELTS Overall 6.0)
REFERENCES	Dr. **Chung-Hsien Kuo** Professor, Department of Mechanical Engineering, National Taiwan University, Taiwan President, Robotics Society of Taiwan (RST)/ 台灣機器人學會理事長 Email: chunghsien@ntu.edu.tw Dr. **Shu-Hao Liang** Professor, Industry 4.0 Center, National Taiwan University of Science and Technology, Taiwan Email: shuhaoliang@mail.ntust.edu.tw Dr. **Minh-Quang Tran** Professor, Industry 4.0 Center, National Taiwan University of Science and Technology, Taiwan Email: minhquang.tran@mail.ntust.edu.tw