HOANG-THONG VO

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RESEARCH INTERESTS

My current research interests focus on three topics: intelligent transportation systems, smart mobility, and computer vision for smart cities.

EDUCATION

VNUHCM - University of Information Technology
 Bachelor of Science, major: Data Science, in-major GPA: 8.76/10.00 (3rd year - 5th Semester)

 Coursework: Statistical Machine Learning, Deep Learning, Optimization and Applications, Data Analysis and Visualization, Experimental Design Analysis, Data Collection and Preprocessing, Data Structure and Algorithm, Object Oriented Programming, Probability and Statistics

• Le Quy Don Khanh Hoa High School for the Gifted High school education, class of Informatics Aug 2015 - May 2018

WORK EXPERIENCE

• Spring Knowledge Global Joint Stock Company
Data Scientist

Apr 2021 - Oct 2021

- Collected and built a dataset to train model using Labelimg open source and Roboflow app
- Researched and developed a model to tackle the small object like QR-code in object detection using Tensorflow and Pytorch framework
- Deployed PyTorch model on Android app with Tensorflow Lite
- Officience

Machine Learning Engineer

Aug - Oct 2020

- Crawled, optimized crawling process and pre-processed data from 5 real estate sites by Scrapy, beautifulsoup4, lxml
- Performed Bash script that automatically inserts raw data into databases
- Cleaned and wrangled raw data on a database using Pandas
- Visualized data using Matplotlib, Seaborn and PySpark

RESEARCH EXPERIENCE

• Information Systems Laboratory - University of Information Technology Research Assistant

Jul 2020 - Current

- Supervisor: Dr. Trong-Hop Do
- Research on Visible Light Communication, Vehicle Communication and Sensing, and Optical Camera Communication

PUBLICATIONS

- Hoang-Thong Vo, Ngan-Linh Nguyen, Thien-Long Nguyen, Dinh-Tu Vo, and Trong-Hop Do, "Xây Dựng Bô Dữ Liêu UIT-DET Cho Hê Thống Giám Sát Giao Thông Trong Thành Phố Thông Minh", 2021 10th CITA National Conference on Information Technology and Its Applications
- Trong-Hop Do, Ngan-Linh Nguyen, Hoang-Thong Vo, Thanh-Binh Nguyen and N. Tan Vu Khanh, "Deep learning based image processing for proactive data collecting system for autonomous vehicle," 2021 21st ACIS International Winter Conference on Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing (SNPD-Winter), 2021, pp. 253-256, doi: 10.1109/SNPDWinter52325.2021.00062.

HONORS AND AWARDS

Potential idea prize for AI Challenge 2021

Dec 2021

The competition has a global scale organized by the Department of Information and Communications of Ho Chi Minh City. The theme of the annual AI contest is "Recognizing Vietnamese words in outdoor photos and daily activities". In this competition, the goal is to detect and recognize text in images, specifically will focus on the text in the scene text recorded from many camera sources in Vietnam. Details about the competition: Here.

The title of "Advanced youth following Uncle Ho's word" was honored by the Executive

Dec 2021

Board of the University of Information Technology The title of "advanced youth following Uncle Ho's word" is awarded to students who have achieved excellent results in the fields of learning, creativity, scientific research, culture, art, sports, community activities, and integration action. The condition that students receive awards is to win prizes in competitions from the head level and above. Details about the title: Here.

- Certificate of Merit from the President of Vietnam National University, Ho Chi Minh City Nov 2021 Certificate of Merit for students with articles published in prestigious international journal ISI.
- Principal's certificate of merit for students with good achievements in scientific research Sep 2021 Certificate of Merit from the Rector awarded to students who have scientific research articles in international conferences and prestigious journals. Result about the certification: Here.
- Third prize and creative idea award in AI Tempo Run 2021 competition Aug 2021 The competition requires solving the problem of detecting Vietnamese words in pictures of outdoor scenes and daily activities. The contest is open to all students of the University of Information Technology, organized by the Faculty of Computer Science, University of Information Technology, VNU-HCM. Details about the competition: Here.
- Honor prize in Provincial Informatics Olympiad for High School Students Jul 2017 Competed individually in 1 days to solve 6 data structures and algorithms problems in 3 hours.
- Honor prize in Provincial Informatics Olympiad for High School Students Nov 2016 The competition for gifted high school students in computer science across the province, organized by the Khanh Hoa Department of Education and Training. Candidates competed individually in 2 days to solve 3 data structures and algorithms problems in 3 hours on each day.
- Gold medal in 30/4 Informatics Olympiad for Vietnam Southern High School Students Apr 2016 Candidates competed individually in 1 day to solve 3 data structures and algorithms problems in 3 hours.

LANGUAGES

Vietnamese: Mothertongue

English: Reading, Writing: Intermediate; Listening, Speaking: Basic

TECHNICAL SKILLS

- Programming Language: Python, C/C++, Bash script, SQL (Postgre), R
- Machine Learning Algorithms:
 - Supervised: Regression (Linear, Logistic), Memory Instance-based (k-Nearest Neighbor), SVM,
 Decision Tree (CART), Ensemble (Bagging, Random Forest, Boosting), Naive Bayes
 - Unsupervised: Clustering (K-Means), Linear Dimensionality Reduction (PCA, LDA)
- Deep Learning Frameworks: Scikit-learn, Keras, Tensorflow
- Web Scraping Frameworks Proficient: Scrapy, Request, Beautifulsoup, lxml
- Data Analysis and Visualization Frameworks: Pandas/Dask/Ray/Modin, Matplotlib/Seaborn, Scipy, Numpy
- Version Control Proficiency: Git, Github
- Document Creation: Microsoft Office Suite, LaTeX, Markdown

CERTIFICATIONS

- Computer Vision Basics Coursera
- Fundamentals of Visualization with Tableau Coursera

REFEREES

Senior Researcher at Faculty of Information Science and Engineering, University
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