Tung Thanh Le

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❖ ***Education***

- **University of Louisiana at Lafayette, USA**
  Doctor of Philosophy (Ph.D.) in Computer Science
  08/2013 – 12/2018
- **Kumoh National Institute of Technology, South Korea**
  Master of Engineering (M.Eng.) in IT Convergence Engineering
  09/2011 – 08/2013
- **University of Louisiana at Lafayette, USA**
  Master of Science (M.Sc.) in Computer Science
  08/2013 – 12/2016
- **Danang University of Technology, Vietnam**
  Bachelor of Engineering (B.Eng.) in Electrical Engineering,
  08/2002 – 08/2007

❖ ***Professional Work Experience***

- **Data Scientist (Analyst – Data Science)**
  J.D. POWER
  07/30/2018 – Present
  - ***Days-to-turn on Vehicles Prediction****:* Responsible for building predictive models using data analytics, machine learning and artificial intelligence knowledge to predict days-to-turn target which determines how long a new car will be sold with particular features such as options, configurations, locations, etc. Used H2O.ai and Driverless AI for modeling.
  - **Online Social Review Analytics:** Responsible for collecting and analyzing data for online banking reviews sentiment analysis using natural language processing (NLP) techniques such as text cleaning, feature engineering using outlier remover, lemmatization, N-grams tokenization; Utilized Amazon Comprehend, Google Cloud Natural Language for data processing and multi-languages support.
  - **Conversational Artificial Intelligence**: Responsible for developing a conversational chatbot for market research using machine learning, NLP techniques with Google Dialogflow and Amazon AWS LEX. Deployed on different platforms such as Facebook, WhatsApp, Twilio SMS and Dialog Phone.
- **Research Intern**
  Hanwha Thales, South Korea
  08/30/2012 – 12/31/2012: Responsible for optimizing the network topologies for ships' built-in-network communication.
- **Software Engineer**
  Unilab-DUT (Novas Technologies Ltd.), Vietnam
  04/01/2008 – 06/01/2011: Responsible for software-hardware development.
- **Summer Intern**
  Orion Technologies Co., South Korea
  06/01/2012 – 08/30/2012: Responsible for programming network communication in ships.
- **PCB Layout & Design Engineer**
  Acronics Systems, Inc – San Jose, CA (Vietnam office)
  06/01/2007 – 03/30/2008: Responsible for designing PCB on high-speed circuit boards.

❖ ***Projects***

- **Donation Analytics (Insight Data Engineering Challenge):** As a data engineer working for political consultants whose clients are cash-strapped political candidates, they've asked for help analyzing loyalty trends in campaign contributions, namely identifying areas of repeat donors and calculating how much they're spending. Identify areas (zip codes) that could be sources of repeat campaign contributions.
- **Behavioral Cloning (Deep Learning):** Built and trained a convolutional neural network to drive the car itself autonomously in a simulator using Tensorflow (backend) and Keras. Experimented with a modified Nvidia architecture. Performed image processing with brightness, shadow augmentation, and flipped images. Used dropout and Adam optimizer to generalize the network for driving multiple tracks. The datasets are used via Udacity's source for training the model. Trained the model on Amazon AWS EC2 platform with GPU instances.
- **Traffic Sign Recognition Classifier (Deep Neural Network):** Built and trained a deep neural network to classify traffic signs, using TensorFlow. Experimented with different network architectures. Performed image pre-processing and validation to guard against overfitting. The datasets are collected from the German Traffic Sign for training and random traffic signs downloaded from internet for testing.
- **Creating Customer Segments:** Evaluated what types of customers, wholesale distributors have to help them make better, more informed business decisions on the changes of their customers. Used unsupervised learning techniques (K-Means Clustering) to observe any similarities exist between customers.
- **Finding Donors for CharityML:** Helped build an algorithm to best identify potential donors and reduce overhead cost of sending mail. Evaluated and optimized different supervised learners to determine which algorithm will provide the most appropriate solution.
- **Vehicle Detection and Tracking (Computer Vision):** Detected and tracked vehicles using color and histogram of oriented gradient features (HOG), and a support vector machine (SVM) classifier.
- **Advanced Lane Finding (Computer Vision):** Built an advanced lane-finding algorithm using distortion correction, image rectification, color transforms, and gradient thresholding. Identified lane curvature and vehicle displacement. Overcame environmental challenges such as shadows and pavement changes. Detected highway lane lines on a video stream. Used OpenCV image analysis techniques to identify lines, including Hough Transforms and Canny edge detection.

❖ ***Professional Certificates***

- Certification of Machine Learning (2017)
  Online Course – Stanford University
- Certification of Natural Language Processing Specialization (2021)
  Online Course – *DeepLearning.AI*
- Certification of Statistical Learning (2018)
  Online Course – Stanford University

❖ ***Honors & Awards***

- Graduate Teaching Assistantship, *09/2015 – 06/2018*
- NSF Graduate Research Fellowship, *09/2013 – 08/2015*
- Best Paper Award - 14th Conference on Electronics & Info. Communications *2012*
- NIPA scholarship and NRF scholarship, South Korea, *09/2011 – 06/2013*
- Samsung Thales scholarship for student travel in *12/2012*
- Excellent student in Danang University of Technology, *2004 – 2007*
- One of four honor students achieving highest score on graduation thesis (4/500) in *2007*

❖ ***Computer Skills***

- **Programming languages:** Python, Java, PySpark, Scala, BigQuery, Javascripts, SQL, C/C++, R, MATLAB, CPLEX/AMPL.
- **Frameworks/Libraries:** Tensorflow, Keras, Apache Spark, MLLib, Node.js, OpenCV, Scikit learn, PyTorch, Spacy, nltk, OpenAI, AWS products, H2O.ai and driverless AI platform, Trax by Google.
- **Data Visualization:** Tableau, Power BI; **Cloud Services:** Amazon AWS, Google Cloud Platform.