Tuan A. Le

MSc.Phys
Vingroup Youngtalent Scholar

Contact Information	Watten Estate Condo	+65-8108-1586
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Personal Summary

Possessed analytical thinking and planning; solid background on mathematics and quantitative research. Specialized in researching and analyzing time series data and graphs/networks. Experienced in customer segmentation, propensity model, dynamic credit scoring and churn prediction.

Education

Singapore Managment University (SMU), Singapore — Aug 2022

Master's Degree, Artificial Intelligence

University of Texas at Dallas, Dallas, TX, USA — Summer 2018

PhD Material Science, Attended

Ball State University, Muncie, IN, USA — 2016-2018

M.Sc Physics, GPA: 4.0/4.0

Thesis: *Thermal Properties of Single-Walled Carbon Nanotubes*

Wabash College, Crawfordsville, IN, USA — 2012-2016

B.A Double Majors: Mathematics, Physics

Hanoi-Amsterdam High School for the Gifted — 2008-2011

Physics Specialized Class

Professional Experience

Pace Enterprise *Singapore, Singapore* — Jan 2022 - Sept 2022

Data Engineer

- Built dynamic Credit Scoring model with real time machine learning data pipeline
- Studied customer segmentation and profiling and Data pipelines for recommendation system
- Planned and worked with analytic Data warehouse for company across 5 different markets (Singapore, Japan, Thailand, Malaysia, Hong Kong)

Nova Group *Singapore, Singapore* — May 2021 - Nov 2022

Senior Data Scientist - Contractor/Advisory

- Researched Graph Clustering techniques for Community detection
- Studied Node and graph Embedding techniques (Node2Vec, GraphSage, Graph CNN) in graph deep learning and graph ontology

Techcombank *Hanoi, Vietnam* — Dec 2019 - Jan 2021

Data Scientist

- Researched customer propensity models on insurance and time deposit product
- Researched banking digitalization in online payment contributing to significant growth in customer pool and in customer churn rate
- Built analytics tools for the bank's digital channels to monitor business impacts

Viettel Telecom *Hanoi, Vietnam* May 2018 - Dec 2019

Data Scientist

- Mined Telco big data and recommended actions based on the results
- Studied models for estimating income of the telco company's sixty million customers
- Modeled churning predictors for business actions

Ball State University *IN, USA* Fall 2016 - Spring 2018

Research Assistant

Statistical Physics and Condensed Matter Lab

- Studied phonon behaviors (Phonon density of state and Dispersion relation) of Single Wall CNT with various methods: Dynamical Matrix Green function and Velocity Autocorrelation function (VACF)
- Studied thermal conductivity of single-walled CNTs using Green-Kubo formalism with LAMMPS
- Studied heat capacity of different type of CNTs based on the researched phonon behaviors

Publications

In Progress

Le, T.A. and Solihin, W. *"Graph-Based Analysis on BIM Building Structures"*

Academic

Le, T.A (2019). *Thermal properties of single walled carbonanotubes* (Accession No. 123456789/201699) [M.Sc Thesis, Ball State University]. Cardinal Scholar

Le, T.A and Khatun M. *"Phonon Dispersion and Thermal Conductivity of Carbon Nanotubes (CNTs)"*, APS Ohio-Region Sectional Fall Meeting, Miami University, Oxford, OH, (October13-14, 2017)

Blog

Le, T.A. *"Single Seasonal Time Series Anomaly Detection with Brutlag's Algorithm and Holt-Winter ETS."* Medium, Medium.com, 18 Aug. 2020

Data Analytics Programming Skills

Amazone Web Service (AWS)

- Elastic Beanstalk, EC2, S3, Lambda, Kinesis, Rekognition, Api Gateway, Sagemaker, Rds,....

Reporting and Digital Analytics

- Google Analytics, Hollistic, Mixpanel, Power BI

Python

- Data Analysis: Pandas, Numpy, Scikit-learn, Scipy, Statsmodels, Tensorflow, Keras
- Data Visualization: VPython, Matplotlib, Plotly-Dash, PowerBI

Databases: ORACLE, MSSQL, MYSQL, POSGRESQL

Operating Systems and Computers Cluster

- Microsoft Windows. Linux
- Cluster: Beowulf Cluster- Ball State University. Simulated different physical science research models. Submitted jobs on Cluster to perform scientific calculations

Test Scores

TOEIC: 960/990 Spring 2019

- Listening (485/495): Top 2%
- Reading (475/495): Top 5%

GRE: 330/340 (Quant+Verbal) Fall 2017

- Quant (170/170): Top 3%
- Verbal (160/170): Top 10%

TOEFL: 93 Fall 2012

Presentations

Invited Talk

Wabash College Colloquium May 2018
Title: *Analysis of thermal and Mechanical Properties of Carbon Nanotubes*

Oral Presentations

Techcombank Data Office Showcase Oct 2020
Title: *Modelling complex Seasonal Time series with Fourier Transform*

Ball State University Student Symposium Dec 2017
Title: *Phonon Dispersion Relation of Carbon Nanotubes*

Ball State University Student Symposium Dec 2016
Title: *Time Arrow Under the Eyes of Boltzmann Statistics*

Poster Presentations

Ohio Region Section of the American Physical Society (OSAPS) Sept 2017
Title: *Thermal Conductivity of Carbon Nanotubes*

Ball State University Student Symposium Apr 2017
Title: *Thermal Properties of Carbon Nanotubes: Molecular Dynamics*

Awards and Honors

- National Academic Honor Societies' Member
  Sigma Pi Sigma — Fall 2018
  Phi Beta Kappa — Fall 2016 - Fall 2018
- UT Dallas Doctoral Research Assistantship Award (Offer Declined) — Fall 2018
  $24,600/academic year
- UT San Antonio Doctoral Research Assistantship Award (Offer Declined) — Fall 2018
  $27,800/academic year
- University of North Texas Doctoral Assistantship Award (Offer Declined) — Fall 2018
  $19000/academic year
- Ball State University Graduate Assistantship Award — Fall 2016
  $14,000/academic year
- Wabash College Presidential Scholarship — Fall 2012
  $10,000/academic year
- Wabash Grant — Fall 2012
  $15,000/academic year
- Undergraduate Dean's List Recipient (various semesters) — 2012-2015