# VAN THANH TUNG **NGUYEN**

 $Email \cdot Phone \cdot LinkedIn \cdot Github \cdot Codeforces$ 

# Education

# Hanoi University of Science and Technology (HUST)

Hanoi, Vietnam

Bachelor of Data Science and Artificial Intelligence; CPA: 3.58; Highest GPA: 3.92

August 2019 - Present

# Ostbayerische Technische Hochschule Regensburg (OTH)

Regensburg, Germany

Virtual Exchange Student at Department of Information Technology

March 2021 - June 2021

# Scholastic Achievements

#### Vietnam Online National Olympiad in Informatics | Top 1% (Rank 5)

2019

• The most important competition for Vietnam national high school student in the fields of computer science.

Codeforces Div. 2 (Round 592) | Top 0.1% (Rank 21/27830)

2019

• The online competition for competitive programming candidates from all around the world.

# The ICPC Asia Danang Regional Contest | Awarded 3rd Prize

2019

• The International Collegiate Programming Contest represents the geographic area of Vietnam, Asia SE, Asia Pacific.

#### Odon Vallet Scholarship

2018

• Annual scholarship awarded for Vietnam national excellent students.

# Experience

# **Data Science Laboratory**

From March 2021 - Current

Research Student

SOICT, HUST

- Study Probabilistic Graphical Models: Naive Bayes, Latent Dirichlet Allocation, Gaussian Mixture Models, etc.
- Do research in the field of deep neural network in general and continual learning particular: reading papers, coding.
- With members of the research department, conduct analysis, make conclusions, and publish weekly reports.

Shaw Software May 2019 – Dec 2022

Free lancer

Hanoi, Vietnam

- Running a small software business, developing products on desktop to serve customers' needs for data, automation.
- Coordinating members, dividing work, giving daily discussion to solve customer's problems.

### Projects

#### Big Data Storage | Big Data

January 2023

- Design big data systems on cluster physical machines allows: Crawl, Store, EDA, Machine Learning Engineer, Streaming
- Frameworks: Kafka, Hbase, Hadoop, HDFS, YARN, Spark, Spark MLlib, Spark Streaming

#### Analysis of Vietnam High School National Exam results | Data Science

January 2022

- Gave detailed description of national exam scores as well as analysis of their correlation with social and economic factors using EDA and ML techniques.
- Provided a dashboard with interactive plots for better insights on the scores.

#### Conditional Image Generation From Limited Data | Deep Learning

November 2021

• Generated conditional images from a small dataset by transferring prior knowledge of a pretrained generator.

### Housing Prices Prediction | Machine Learning

May 2021

• Built an extensible method consisting a regressor, K-means and K-NN algorithm, also used others tree-based regressor (AdaBoost, XGBoost) to predict housing prices from the Boston Housing dataset.

# Bitcoin Price Sideway Breaking Signal | Applied Statistics & Experimental Design

March 2021

• Building a signal system checks whether the Bitcoin price breakout the sideway trend (CUSUM, hypothesis testing, sliding window applied).

#### Vehicle Routing Problem | Optimization

October 2020

• Optimized vehicle routes with constraints on pick-ups/deliveries and maximum capacity using different methods (mixed-integer programming, constraint programming, backtracking, and heuristic algorithms).

# Recent Products

#### Automated Billing Payment Software | API, Selenium, Proxy Server, Parallel Programming

- Paying a large number of bills requires repetitive operations which are boring and require human effort. This software allows to automate the above work and reduce number of employees using browser controller Selenium.
- Payment gateway: Tiki Ecommerce Vietnam.

# Skills

# Math & Science Knowledge

- Solid foundation on Math & Basic Science (Statistics, Probability, Algebra, Calculus, Discrete Math, Optimization, etc).
- Solid on industrial core foundation courses (Data Science, Deep Learning, Machine Learning, Algorithms, etc).

#### **Programming**

- Python, SQL, Java, C/C++, R.
- Design (OOP, GUI).
- Algorithms (strong knowledge).
- Data crawler (strong knowledge) by Network Analyzer, API, Selenium.
- Machine learning, deep learning (scikit-learn, Pytorch, TensorFlow, Spark MLlib).
- Data Visualization, EDA (Seaborn, Matplotlib, Plotly, Tableau).
- Big Data ecosystem (Hadoop, Zookeeper, HBase, Spark, Kafka).

#### Working

- Work under pressure and comfortable to work independently.
- Able to be a leader, manage work, communicate and present.
- Able to googling, asking for help.

# References

Prof. Khoat Than

Head of Data Science Lab

M.S. Ngo Van Linh

Data Science Lab

Hanoi University of Science and Technology

Hanoi University of Science and Technology