Manh Nguyen

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SUMMARY

I am pursuing my PhD journey at Applied Artificial Intelligence Initiative, Deakin University. My thesis, "*Towards Reliable Large Language Models for Open-ended Question Answering*", aims to explore how we can build more trustworthy AI systems that can handle open-ended questions effectively. Before that, I spent 5 years applying machine learning to solve data science problems in the industrial fields.

EDUCATION

Hanoi University of Science and Technology   **Hanoi, Vietnam**
Bachelor of Science (B.S.) in Electronics and Communications Engineering   *Aug. 2012 - Jun. 2017*
- Honors Program
- GPA: **3.28/4** (convertible to 10-scale: **8.2**) - Class rank: **3rd/22**

COMPLETED WORK AND PUBLICATIONS

Manh Nguyen, Sunil Gupta, and Hung Le. "*Probabilities Are All You Need: A Probability-Only Approach to Uncertainty Estimation in Large Language Models*". Submitted to AAAI.   *2025*

Manh Nguyen, Sunil Gupta, and Hung Le. "*CAAD: Context-Aware Adaptive Decoding for Truthful Text Generation*". Submitted to AAAI.   *2025*

Nguyen, Tuan Duy, Duc Minh Nguyen, **Huu Manh Nguyen**, and Thi Quynh Giang Nguyen. "Topic classification of Vietnamese product reviews in e-commerce using PhoBERT". Published at Journal of Marketing Analytics.   *2025*

Tran, Luan, **Manh Nguyen**, and Cyrus Shahabi. "Representation learning for early sepsis prediction.". Published at Computing in Cardiology (CinC).   *2019*

PROFESSIONAL EXPERIENCE

Applied Artificial Intelligence Institute (A2I2, Deakin University)   **Geelong (Victoria), Australia**
PhD Student   *Oct. 2024 - Current*

*My research focuses on improving reliability of LLMs, including hallucination detection and mitigation. I am currently working under the supervision of **Dr. Hung Le** (primary supervisor) and **Prof. Sunil Gupta** (co-supervisor).*
- Research Assistant (6 hours/week)   *May 2025 - Present*
- One paper submitted to ICLR 2026   *Sep. 2025*
- Two papers submitted to AAAI 2026   *Aug. 2025*
- Delivered hands-on tutorial session on detecting LLM hallucinations at AJCAI 2024   *Nov. 2024*

Coderschool   **Hanoi, Vietnam**
Data Science Mentor (Part-time)   *Jun. 2022 - May 2025*

XPON Technologies Group (ASX:XPN, Repensentative Office)   **Hanoi, Vietnam**
Data Scientist   *May 2022 - Oct. 2024*

My work focused on developing the Data Science portion of Wondaris (a Customer Data Platform product).
- *Identity Resolution.* Research, design and implement solutions for incremental and batch deterministic identity matching.
- *End-to-end Machine Learning solutions.* Leverage Google Cloud to build end-to-end solutions (from processing data, feature engineering to training, evaluating, predicting and monitoring ML models) for Machine Learning problems such as propensity models, churn prediction model, lifetime value prediction, customer segmentation... based on unified CDP data.
- *Automate Feature Suggestions.* Build a solution that automatically suggests the best features based on clients' input configuration. In addition to meeting many different types of models (classification, regression), input data quality control, and data processing, this engine must also ensure that overfitting is automatically resolved.

Vin3S (a subsidiary of Vingroup)   **Hanoi, Vietnam**
Data Scientist   *Apr. 2021 - May 2022*

My work focused on building data warehouses and solving data science problems for VinHomes (a real estate company).
- *ETL data.* Ingested and cleansed data from different sources of VinHomes then built corresponding data warehouses.
- *Data Analysis.* Built analytical reports and proposed detailed actions to improve data quality.
- *Identity Matching.* Developed identity matching rules and aligned with business users to consolidate each dimensional dataset, especially customer profile data.

- *Lead Scoring.* Built a Machine Learning model with over 95% precision to automatically classify potential customers (leads) into groups based on online behavior on the website, responses to the agent as well as transactions and interactions with Vinhomes. This model helps increase monthly hot lead conversion rate by 20%.

Viettel Digital Services (a subsidiary of Viettel Group)   **Hanoi, Vietnam**
Data Scientist   *Mar. 2020 - Mar. 2021*

    My work focused on building Machine Learning models to improve the operation of products on VietteelPay (an e-wallet product).

- *Lead Generation*. Built a Machine Learning model that follows a look‑alike scenario to find potential users for new products on VietteelPay. The model delivered 2 times higher average conversion rate by messaging than traditional methods for products from a variety of industries.
- *Credit Scoring*. Built a credit scoring model from raw telecommunications data, achieving Gini efficiency greater than 0.7. The model was created by features from customer profiles, telecommunications consumer behaviors and user locations.

Developer Circle Program (*Part-time***)**   **Hanoi, Vietnam**
Data Science Instructor   *Sep. 2020 - Nov. 2020*

3S Intersoft   **Hanoi, Vietnam**
Machine Learning Engineer   *Apr. 2019 - Mar. 2020*

Viettel Aerospace Institute (a subsidiary of Viettel Group)   **Hanoi, Vietnam**
R&D Engineer   *Jul. 2017 - Mar. 2019*

SKILLS

Technical skills:
- *Programming:* Python/Pyspark, SQL.
- *Machine Learning libraries:* Scikit‑learn, Numpy, Pandas, Tensorflow/Keras, PyTorch.
- *Tools:* Google Cloud Platform, data visualization tools (Tableau / Power BI / Google Data Studio / Matplotlib / Seaborn).

Foreign language proficiency: English - PTE 74 (Proficient)   *Jun. 2023*

HONORS AND AWARDS

1st Prize, Kalapa Credit Scoring Challenge for Students.   *Oct. 2020*
2nd Prize, Vietnam Mathematics Olympiad for University Students   *2015*
1st Prize, Vietnam Mathematics Olympiad for University Students   *2013*

CERTIFICATIONS

Google Cloud - Professional Machine Learning Certification   *Sep. 2022*
Google Cloud - Professional Data Engineer Certification   *Dec. 2022*