

# HANA NGUYEN

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📍 Wollongong, NSW - 2500, Australia

## PROFESSIONAL SUMMARY

An experienced Data Analyst with a Master's degree in Computer Science (Distinction), complemented by 4+ years of international experience in the technology sector. Proficient in Python and Power BI, I transform big data into actionable insights using machine learning and artificial intelligence. Combining strong research capabilities with practical experience in data analytics, I am able to deliver data-driven insights. My motto: **Always learning, always adapting.**



## WORK EXPERIENCES

- **University of Wollongong** [[uow.edu.au](https://uow.edu.au)] Feb 2024 - Present  
Wollongong, NSW  
*Machine Learning Research Assistant - Casual*
  - Design ML models to analyse financial market news sentiment.
  - Tasks: Optimise transformer-based architectures (BERT, FinBERT, RoBERTa and LLAMA) for domain-specific sentiment classification.
  - Actions: Fine-tune NLP models using Twitter financial sentiment datasets and the PhraseBank financial corpus for domain adaptation.
  - Actions: Manage the full lifecycle of observational studies, from big data segmentation to delivering client-ready reports and visualizations.
  - Result: Achieved a 15% improvement in sentiment classification F1 score, write a conference paper.
- **University of Wollongong** Feb 2024 - Present  
Wollongong, NSW  
*Tutor and Laboratory Demonstrator - Part-time*
  - Provide mentorship to 50+ students in AI and machine learning, fostering an engaging learning environment.
  - Tasks: Deliver hands-on workshops and presentations, and simplify complex concepts.
- **Xebia** [[xebia.com](https://xebia.com)] Sep 2022 - Aug 2023  
Vietnam  
*Technical Business Analyst | Product Owner - Full-time*
  - Develop secure, cloud-based banking app functions (Cards, Transactions, Payments, Apple Pay) for a ABbank.
  - Tasks: Scope out and build functions on the Backbase platform.
  - Actions: Map and prioritise the product backlog based on potential ROI, balancing risk and reward with a commercial mindset.
  - Set security requirements, embedding fraud detection tools and multi-factor authentication.
  - Write requirements for API integration with external banking services, functional and technical documentation.
  - Result: The functions were implemented successfully.
- **FPT Software** [[fptsoftware.com](https://fptsoftware.com)] Sep 2021 - Sep 2022  
Vietnam, Bahrain, Turkey  
*Technical Business Analyst - Full-time*
  - Implement a fintech app features for a telco.
  - Tasks: Perform market segmentation analysis to tailor fraud detection tools, boosting mobile transaction adoption.
  - Actions: Work closely on site with a multinational team (UAE, Turkey, Bahrain, Vietnam).
  - Manage Agile sprints, aligning with PMO standards for project delivery
  - Write detailed user stories, run UI/UX research, and validate designs with the product team.
  - Result: The solutions were implemented successfully, boosting mobile transactions by 20% yoy.
- **Viettel IDC** [[viettelidc.com.vn](https://viettelidc.com.vn)] Mar 2019 - Sep 2021  
Hanoi, Vietnam  
*Data Analyst - Full-time*
  - Analyse cloud computing market trends and customer engagement data, segmenting markets to identify growth opportunities and improve service offerings.
  - Design interactive Power BI dashboards to visualize trends, present insights to stakeholders, and customer service trends for market research.
  - Manage data mining and modeling projects that enhanced response times and service efficiency through structured workflows.
  - Consolidated data from multiple sources to identify patterns and opportunities for service improvements
  - Result: Increased customer retention rates by 10%, and provide detailed analysis of industry trends, for strategic decision-making

## EDUCATION

- **University of Wollongong**  
*Master of Computer Science - Distinction*  
◦ Major: Cyber Security and Software Engineering  
Jul 2023 - Jul 2025  
Wollongong, Australia
- **University of Essex**  
*Master of Science: Finance and Investment*  
Oct 2017 - Oct 2018  
Colchester, United Kingdom
- **Academy of Finance**  
*Bachelor of Banking and Finance*  
Aug 2010 - Jul 2014  
Hanoi, Vietnam

## PROJECTS

- **Project A: Urban Mobility Simulation Analysis for Rome Taxi Data**  
*Tools: [R programming language with packages: dplyr, data.table, geosphere, lubridate, dbscan, ggplot2]*  
Dec 2023 - Feb 2024  

  - Objective: The objective is to perform thorough cleaning and validation of large-scale vehicle GPS data to produce reliable datasets for transportation analysis, safety assessment, and regulatory compliance monitoring.
  - Action: Implements chunk-based processing to handle large datasets (>21 million rows) efficiently. Detects multiple types of data anomalies relevant to safety assessment: Geographical outliers (points outside designated service areas), Speed-based outliers (unsafe or unreasonable vehicle speeds), GPS errors (stuck GPS, jitter, sharp turns), Temporal issues (duplicate timestamps, large gaps).  
Generates comprehensive reports and dashboards to monitor risk and measure effectiveness of initiatives
  - Result: Produces clean datasets suitable for traffic analysis and regulatory compliance monitoring (removed 20% noise and outliers data). Creates detailed quality reports showing issue distributions across time and vehicles. Efficiently processes large GPS datasets (>21 million rows) with memory-optimized algorithms
- **Project B: NLP-Based Financial News Sentiment Analysis**  
*Tools: [Python, BERT, GPT, RoBERTa, AWS, Firebase]*  
Dec 2023 - Feb 2024  

  - Objective: Design an NLP model to classify financial news sentiment.
  - Action: Train and fine-tune transformer-based models to analyze financial news in real time.
  - Result: Improved the accuracy of sentiment news classification by 15%. Published the fine-tuned model on Hugging Face and delivered a conference paper (in-review status).


## CERTIFICATIONS

- **AWS Certified Solutions Architect – Associate** Completing
- **Hugging Face Agents** Mar 2025

## SKILLS

- **Programming:** Python, C++, JavaScript, Flask, RESTful APIs
- **Data Science/ML:** Pandas, TensorFlow, PyTorch, NLP, Big Data, Machine Learning, Artificial Intelligence, AI Agents, R
- **Databases/Cloud:** MySQL, PostgreSQL, MongoDB, AWS, Firebase
- **Tools:** Power BI, Jira, Confluence, Figma, Postman, draw.io
- **Product Development:** Backlog Management, User Stories, UI/UX Wireframing
- **Soft Skills:** Teamwork, Collaboration, Communication, Problem-Solving

## ADDITIONAL INFORMATION

**Languages:** English, Vietnamese, Chinese (Mandarin)  
 **Check out my portfolio here:**  
[heathered-afternoon-b98.notion.site/Hey-I-m-Hana-Nguyen](https://heathered-afternoon-b98.notion.site/Hey-I-m-Hana-Nguyen)

## REFERENCES

Available upon request.