



# Thong Minh Lai (Tom)

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 [thong-lai](#) |  [ThongLai](#) | [Personal Website](#) | [Kaggle](#)

Huddersfield, United Kingdom

## OBJECTIVE

Enthusiastic and skilled in AI, Machine Learning, Deep Learning, Neural Networks, and various models and domains, with 2 years of experience in Python, C++ and Octave (MATLAB). I am seeking opportunities to leverage my expertise and contribute to innovative projects in AI and practical problem-solving in related fields

## SKILLS

- **Programming Languages:** Python, C++, Java, MATLAB/Octave
- **AI & Machine Learning:** Neural Networks, Deep Learning, Computer Vision, NLP, YOLOv9, Support Vector Classification (SVC)
- **Data Science & Analytics:** Descriptive Statistics, EDA, PCA, Outlier Detection, Data Visualization (Matplotlib, Seaborn, Tableau)
- **Machine Learning Libraries:** TensorFlow, PyTorch, Scikit-learn, NumPy, Pandas
- **Cloud & Development Tools:** AWS, Azure, Git, GitHub, Docker
- **Database Systems:** SQL, Relational Databases, Database Management Systems
- **Web Development:** HTML5, CSS3, JavaScript, React.js, Node.js, Bootstrap, MongoDB, Django, Flask, Responsive Design, Web Security, API Integration, Git/GitHub Pages, AWS Deployment
- **Mathematical Foundations:** Linear Algebra, Calculus, Statistics, Probabilities, Discrete Mathematics
- **Research Skills:** Data Analysis, Academic Writing, Literature Review, Scientific Documentation
- **Soft Skills:** Leadership, Project Management, Team Collaboration, Problem Solving

## EXPERIENCE

- **Learnspot** June 2024 - September 2024  
*AI Software Engineer - Summer Intern* Hybrid - London
  - Designed and implemented a customer service Chatbot using Prompt Engineering with the OpenAI API
  - Integrated the Moderation API to ensure safe and appropriate interactions
  - Employed Chain-of-Thought prompting to enhance the chatbot's reasoning capabilities
  - Implemented evaluation techniques to minimize response leakage and hallucination
  - Developed an AI tutor chat feature to assist students with their questions and assignments, providing real-time support and guidance

## EDUCATION

- **University of Huddersfield** September 2022 - Present  
*BSc (Hons) Computer Science with Artificial Intelligence SW* Huddersfield, United Kingdom
  - First-year Overall Grade: 93.125% | Second-year Overall Grade: 92.8%
  - Key Modules: Computer Network Fundamentals (100%), Introduction to AI (93%), Algorithm and Data Structures (94%), Computational Mathematics (100%)
- **Ho Chi Minh University of Science - Vietnam National University** October 2020 - September 2022  
*BSc Information Technology* Ho Chi Minh City, Vietnam
  - GPA: 3.7/4.0
  - Received Honor Scholarship for Excellent Academic Student

## PUBLICATIONS AND TECHNICAL REPORTS

T=TECHNICAL REPORT, P=PROJECT PROPOSAL

- [P.1] Lai, M. T. (2025). **Explainable AI (XAI) in Deep Learning Models for Credit Card Fraud Detection**. Project Thesis, University of Huddersfield. Supervisor: Prof. Hyunkook Lee
- [T.2] Lai, M. T. (2025). **Parallel Computer Architecture Clusters and Grids Benchmarking**. Technical Report, University of Huddersfield. Supervisor: Prof. Hamza Aagela
- [T.1] Lai, M. T. (2024). **LearnSpot: Implementing Advanced Prompting Techniques for AI Chat Systems**. Technical Report, Learnspot AI
- [T.2] Lai, M. T. (2024). **Investment Allocation Analysis: A Machine Learning Approach**. Technical Report, McGill-FIAM Asset Management Hackathon

PROJECTS

- **Explainable AI (XAI) in Deep Learning Models for Credit Card Fraud Detection**  
Tools: Deep Learning, SHAP, LIME, Anchors, TensorFlow, Scikit-learn  
[Academic Poster]

October 2024 - Present

[Supervisor: Prof. Hyunkook Lee] [Globe]

- Integrated XAI methods (SHAP, LIME, Anchors) to provide explanations for Deep Learning model predictions.
  - Evaluated explainability using XAI metrics (Faithfulness, Monotonicity, and Completeness) in confidence levels.
  - Compared XAI outputs across models (CNN, LSTM) to identify strengths and limitations for different user needs.
  - Delivered actionable explanations to support regulatory compliance and stakeholder trust in AI-driven decisions.

• **McGill-FIAM Asset Management Hackathon: Investment Allocation**  
Tools: Machine Learning, Big Data Analytics, Financial Analysis

September 2024 - October 2024

[Globe]

- Collaborated with finance specialists as Machine Learning Specialist to develop portfolio trading strategies
  - Implemented ML methods for portfolio optimization and stock selection
  - Developed models to identify key financial factors for stock performance prediction
  - Conducted back-testing to validate portfolio performance using historical data
  - Our strategy delivered over 7500% return from 2010 to 2024, far surpassing the S&P 500

• **Work It: Exercise Recommender System**

January 2024 - Present

[Globe]

Tools: Filtering Collaboration, Web Development, User Feedback Analysis

  - Developed recommender system using Filtering Collaboration to suggest 10 personalized exercises
  - Implemented online batch updates for continuous model improvement based on user feedback
  - Integrated PLESI considerations for privacy, legal compliance, and inclusivity
  - Designed system architecture focusing on gender-inclusive exercise recommendations

• **Eye-tracking in Reading Comprehension: Anomaly Detection**  
Tools: Local Outlier Factor (LOF), Data Analysis, Python

October 2023 - December 2023

[Reference] [Globe]

- Developed Anomaly Detection mechanism using Local Outlier Factor for eye-tracking dataset
  - Analysed 20+ features related to readers' eye movements, fixations, and directions
  - Support PhD researcher Minh Huyen Nguyen to categorize fixations into "First Pass" and "Second Pass" sequences
  - Improved 11.25% data analysis accuracy through systematic outlier removal and feature engineering

HONOURS AND AWARDS

• **Outstanding Leadership Award**  
University of Huddersfield International Office

February 2023

- Led and managed the Vietnamese Society as President, demonstrating exceptional leadership skills
  - Successfully managed social media platforms achieving 2.2k+ Facebook likes and active Instagram engagement
  - Recognised by International Office for impactful community leadership and cultural integration initiatives [Globe]

• **Academic Excellence Awards**  
University of Huddersfield

2022 - 2024

- Maintained an overall grade of over 92% in both years
  - Achieved perfect scores (100%) in Computer Network Fundamentals and Computational Mathematics
  - Received Merit-based Scholarship for Outstanding Academic Performance [Globe]

• **Professional Certifications**  
DeepLearning.AI, IBM, Stanford University

2023 - 2024

- Completed Deep Learning Specialization and NLP Specialization from DeepLearning.AI [Globe]
  - Earned Cloud Computing certification from IBM [Globe]
  - Completed Writing in the Sciences course from Stanford University [Globe]

• **Previous Academic Achievements**  
Ho Chi Minh University of Science & High School

2020 - 2022

- Received Honor Scholarship for Excellent Academic Student at HCMUS
  - Bronze Medal in Mathematics at Excellent Student Olympic Competition
  - Demonstrated exceptional problem-solving skills in competitive mathematics

ADDITIONAL INFORMATION

**Languages:** English (Professional), Vietnamese (Native), Chinese (Basic)  
**Technical Writing:** Scientific documentation, research papers, technical blogs  
**Interests:**

- Any AI Fields: Fraud Detection, Computer Vision, Natural Language Processing, Generative AI
  - Financial Technology: Investment Analysis, Trading Strategies
  - Cultural Exchange: International student community, cross-cultural communication
  - Sports: Badminton (Captain of University Badminton Team)

**Personal Website:** [Portfolio and Technical Blog](#)

## REFERENCES

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1. **Prof. Hyunkook Lee**  
Professor of Music Technology  
Department of Computing and Engineering  
University of Huddersfield  
Email: H.Lee@hud.ac.uk  
  
*Relationship: Final Year Project Supervisor*
2. **Dr. Ilias Tachmazidis**  
Senior Lecturer  
Department of Computing and Engineering  
University of Huddersfield  
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*Relationship: Academic Advisor*
3. **Dr. Muhammad Ansari**  
Senior Lecturer  
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*Relationship: Course Lecturer*
4. **Dr. Dinh Ba Tien**  
Senior Lecturer  
Faculty of Information Technology  
Ho Chi Minh University of Science  
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*Relationship: Former Academic Advisor*

*Additional references available upon request.*