

# CONG (LIAM) VUONG

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## EDUCATION

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- Lancaster University** Lancaster, UK  
Master of Science in Artificial Intelligence Oct 2025 - Sep 2026
- Main modules: Generative AI, Intelligent Agents and Autonomous Systems, Large Scale Platforms for AI
  - Average aggregation marks: 90/100 (Distinction)
- Foreign Trade University** Hanoi, Vietnam  
Bachelor's degree in International Economics (*High-quality program taught in English*) Aug 2020 - Jul 2024
- Cumulative GPA: 3.56/4.0 (Academic scholarship for excellent students in 2022)
  - Relevant Modules: Advanced Mathematics, Statistics and Probability, Data Management System, Programming for Data Analysis and Scientific Computing

## PROJECTS

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- Werewolf – How to be a Better Villager** (*in progress*)
- Built a **multi-agent** framework where SLM villagers used **post-game coaching** to improve deception detection and coordination against LLM adversaries
- Difficulty-Conditioned Generation of Chess Puzzles**
- Implemented a **decoder-only** transformer **from scratch** with difficulty-conditioned generation by prepending ELO-class tokens to FEN sequences
  - Built a **multiprocessing** Stockfish evaluation pipeline for evaluation
  - Use **Gemini-2.5-Flash** across three **prompt variants** (zero-shot, few-shot, CoT) to evaluate correlation between the LLM and FIDE expert ratings
  - **Results:** Prepending difficulty token failed to produce differentiated difficulty distributions. The LLM aligns with experts on surface-level metrics
- Building Amazon Recommendation Systems**
- **Led** a 5-member team; defined the project approach and allocated work to members
  - Researched and implemented **ClickHouse**; performed **content-based, collaborative** (ALS), **dynamic hybrid** recommendations
  - **Results:** Selected **ClickHouse** to store both raw data and vectors. Produced low accuracy but relevant recommendations
- Evaluating small language models (SLMs) as a solution to the challenges posed by large language models (LLMs)**
- **Led** a 5-member team; defined the project approach and allocated work to members
  - Conducted **Domain-Adaptive Continued Pre-Training** (DAPT) and **Supervised Fine-Tuning** (SFT) on SLMs
  - Designed and executed **comparative evaluations** between SLMs and LLMs
  - **Results:** DAPT alone degraded performance. DAPT + SFT SLMs are comparable to base ones, though LLMs remained superior overall.
- Other projects:**
- **Urban Object Detector:** Deployed a web application that detects and localizes urban objects in user-uploaded images/videos with YOLOv7.
  - **Food Detector:** Deployed a web application that classifies food types from user-uploaded images.

## SKILLS

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- **Python** - proficient (*data manipulation, scripting, ML pipelines*)
- **Machine Learning** - proficient (*model training, evaluation, feature engineering, predictive/prescriptive analyses*)
- **SQL** - proficient (*complex joins, CTEs, window functions, performance-aware queries*)
- **Language Modelling** (*fine-tuning, prompt engineering, evaluation*)
- **Computer Vision** (*image classification, transfer learning*)
- **Data Analysis** - advanced (*EDA, insight generation, stakeholder-focused analysis, storytelling*)
- **Other Technologies:** Git & Github, Docker, Airflow, Glue, Redshift, S3, Azure, Confluence, Jira, ClickUp
- **IELTS:** 8.0 (2024)

## EXPERIENCES

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- KiotViet** Hanoi, Vietnam  
Data Analyst Nov 2024 - Jul 2025
- Analyzed event tracking data to enhance the active engagement rate of retailers
  - *Achievements:* Identified cheating; segmented customers based on their website activity
- Advesa Digital Solutions** Hanoi, Vietnam  
Data Analyst Oct 2022 - May 2024
- Reported **monthly insights** to stakeholders, collaborated with business teams to **gather and clarify requirements**
  - **Led training sessions** for end users; worked with teams to identify and resolve data errors
  - *Achievements:* Reduced the project timeline from 6 months to **3 months**, delivering insights through data analyses (e.g., a resale generated **CA\$12k**)

## CERTIFICATES

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- **Coursera:** Data Science Math Skills, Machine Learning Specialization, Deep Learning Specialization
- **Stanford Online:** AI - Principles and Techniques
- **"Data Science in Economics and Business" Program** (*Datapot and Foreign Trade University*): TOP 5 Students with Highest Overall Score 2022
- **Other:** Khan Academy (Statistics and Probability, AP@/College Statistics); **HackerRank:** SQL (Advanced) Certificate