

# LIANA LING LI YA

*Masters of Science (MSc) in Computer Science*  
Apr 10, Phoenix Park Racecourse,  
Castleknock, D15 X381, Dublin 15  
Dublin, Ireland.

Email: [lianalingliya@gmail.com](mailto:lianalingliya@gmail.com)  
Mobile: +353 87 248 1446  
GitHub: [github.com/lianaling](https://github.com/lianaling)  
This Document: Coded with ~~LaTeX~~

## SKILLS

---

- **Programming:** Python, R, Julia, Microsoft Excel, Jupyter, C++, C#, Java, ASP.NET, SQL, HTML/CSS/Javascript, VueJS, Quasar
- **Mathematics:** Data Analytics, Applied Statistical Modelling, Statistics and Probability, Monte Carlo Simulation, Quantitative Research Methods
- **Languages:** Native-level English and Chinese; conversational in Malay and Cantonese
- **Interests:** AI Ethics, AI Art, NLP, Quant Research, Philosophy, Social Science

## EDUCATION

---

- **University College Dublin** Dublin, Ireland  
*Masters of Science (MSc) in Computer Science (Machine Learning); CGPA:3.78* Sep 2023 – Sep 2024
  - Modules: Advanced Machine Learning, Connectionist Computing, Text Analytics, Applied Statistical Modelling, Data Analytics, Monte Carlo Simulation, Generative AI...
- **Tunku Abdul Rahman University of Management and Technology** Kuala Lumpur, Malaysia  
*Bachelor of Computer Science (Honours) in Software Engineering; CGPA:3.98* Oct 2019 – Oct 2022  
*Foundation in Science; CGPA: 4.00/4.00* Sep 2018 – Sep 2019

## EXPERIENCE

---

- **Balaena Quant Sdn Bhd** Kelana Jaya, Malaysia  
*Junior Quant Researcher* Dec 2022 – Sep 2023
  - Researched and designed minute-level statistical arbitrage algorithms for crypto derivatives
  - Analysed options volatility surface and order book imbalance data
  - Written scripts to automate large-scale historical data insertion for crypto trading pairs
- **Datasonic Smart Solutions Sdn Bhd** Putrajaya, Malaysia  
*Machine Learning Intern* June 2022 – Nov 2022
  - Read through journal papers on speech recognition and computer vision
  - Categorised, labelled and augmented 4000 image data using CVAT
  - Trained YOLOv7 to perform card detection with mAP@.5 of 0.998 using PyTorch
  - Designed UI for an OAuth system and connected to backend using VueJS and Quasar
- **LS SMART MACHINERY (M) SDN BHD** Seri Kembangan, Malaysia  
*Junior Software Developer* May 2021 – Jun 2021
  - Communicated and documented stakeholder requirements
  - Researched and reported on competitor analysis and project costing
  - Designed, documented and implemented PostgreSQL database schema
  - Connected application to Stripe API using Golang and Fiber.ctx
- **RSBAITAI by Turcomp BMB SDN BHD** Work from home, Malaysia  
*Chinese-English Translator-cum-Proofreader* May 2020 – Nov 2021
  - Translated and proofread 80+ blog articles and 2 published books
  - Created a database using Excel Macros for article tracking
- **Chill Solutions** Work from home, Malaysia  
*Senior Translator-cum-Proofreader* Nov 2019 – May 2020  
*Junior Translator-cum-Proofreader* Aug 2019 – Oct 2019
  - Translated 40+ web novel chapters from Chinese to English

- Proofread and gave feedback on 35+ works by junior translators
- **Chempaka Kota Kemuning, Assembly of God** Shah Alam, Malaysia  
*Chinese Teacher* Aug 2019 – Oct 2019
  - Handled 3 classes of age groups ranging from 5 to 15 years old

## PROJECTS

---

- **Prostatic Cancer Analysis** Statistical Analysis  
*R Language* Mar 2024 – Apr 2024
  - Performed EDA on real-life patient data: boxplots, correlation, interaction plots, etc.
  - Identified and dealt with non-linearity via Box-Tidwell test
  - Applied logistic regression with an AIC of 54 and F2-score of 0.76
- **SO<sub>2</sub> Emission Analysis** Statistical Analysis  
*R Language* Feb 2024 – Mar 2024
  - Identified multicollinearity via flipping of signs in regression coefficients
  - Applied linear regression with an  $R^2$  of 0.60 and adj.  $R^2$  of 0.55
- **Nuclear Plant Construction Cost Analysis** Statistical Analysis  
*R Language* Feb 2024 – Mar 2024
  - Applied linear regression with an  $R^2$  of 0.92 and adj.  $R^2$  of 0.85
- **Feedforward Neural Network From Scratch** Deep Learning  
*Python* Nov 2023 – Dec 2023
  - Implemented an extendable library for customisable neural network architecture
  - Obtained 80% test accuracy on the [UCI letter recognition dataset](#)
- **SliGen, AI Automatic Slide Generator** Natural Language Processing  
*Transformer, Python, Flask* Oct 2021 – Mar 2022
  - Fine-tuned a HuggingFace T5 model on the ArXiv dataset for title generation
  - Summarised text using transformers, converted into Markdown and generated slides via SliDev
  - Constructed API interface with Flask for linking to web-based application
- **Cataclysm, Cat Detector** Image Processing  
*Haar Cascade Classifier, Python, Threading, Telegram API* 7th Mar 2022
  - Processed frames from IP camera with haar cascade classifier to detect cat face
  - Sent notifications via Telegram Bot API
- **Summarize, AI Text Summariser** Natural Language Processing  
*Transformer, Python, Jupyter Notebook* Sep 2021 – Oct 2021
  - Read through 20+ journal papers and applied 3 abstractive summarisation algorithms
  - Designed an experiment, curated relevant dataset, tested algorithms and produced a comparison report that eventually received 98/100 marks
- **Art Gallery Website** Web Development  
*C#, ASP.NET, VueJS, Tailwind CSS, HTML/CSS/Javascript* May 2021 – Oct 2021
  - Created 5+ pages using self-learned Tailwind CSS and Vue
  - Added intra-page and inter-page functionalities using C#
  - Designed, documented and implemented SQL Server schema

## ACADEMIA

---

- Ling, L., Amirul Imran Ahmad Azam, Ramanathan Palaniappan, & Tin, T.T. (2021, November 25-27) *Artificial Intelligence Art: Attitudes and Perceptions Toward Human Versus Artificial Intelligence Artworks*. [Paper presentation]. ICHEMET 2021.

## ACHIEVEMENTS

---

- UCD Global Excellence Scholarship (top academic performance)
- TAR UMT President's Award (valedictorian/top performing student)
- TAR UMT President's List certificates (GPA 3.9000 and above)
- TAR UMT Soft Skill Certificates
- Band 8.5 on a -band scale for IELTS 2022
- Band 5 on a 6-band scale for Malaysian University English Test (MUET) 2019
- Nanjing University Translation in Practice Online Course Certificate
- Cisco Networking Academy CCNA Routing and Switching Introduction to Networks Course
- Most Disciplined Student, Highest Average Score, Highest Number of Modules Completed in 2015, 2016 and 2017 in Secondary School

## ACTIVITIES

---

- **Taman Sri Muda Flood Relief** TAR UMT/Shah Alam Gospel Centre  
*Volunteer* 24th, 27th Dec 2021
- **Google #GCPBoleh** Google  
*Self-Learning Student* Oct 2021 – Nov 2021
  - Completed 5 Machine Learning and 1 BigQuery Data tutorials on GCP
- **Google Developer Student Club TAR UMT** Google  
*Marketing & Creative Lead* Jan 2021 – Oct 2021
  - Managed communication channels on 5 social media accounts
  - Created event posters and relevant captions
  - Hosted and facilitated the event *Meet the Xperts: A Journey in the IT Industry*
- **Programming League National 2020** University of Malaya  
*Participant* 29th Feb 2020
- **Innovation and Prototyping Competition 2019** TAR UMT  
*Participant* Feb 2019 – Mar 2019
- **Violin for Beginners Level 1, 2 and 3** TAR UMT  
*Participant* Mar 2019 – Dec 2019
- **Foundation in Science (Track A)** TAR UMT  
*Class Representative* Sep 2018 – Sep 2019
  - Collected fees and printed learning materials for the class
  - Communicated with the school management, lecturers and students