LIANA LING LI YA

Masters of Science (MSc) in Computer Science
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This Document: **Coded with LaTeX**

EDUCATION

- **University College Dublin** — Dublin, Ireland
  Masters of Science (MSc) in Computer Science (Data Science); CGPA:3.78 — *Sep 2023 – Sep 2024*

- **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*

SKILLS

- **Programming:** Python, R, Julia, Microsoft Excel, Jupyter, Java, SQL
- **Mathematics:** Data Analytics, Applied Statistical Modelling, Machine Learning, Data Management, Statistics and Probability, Monte Carlo Simulation, Quantitative Research Methods
- **Languages:** Native-level English and Chinese; conversational in Malay and Cantonese

EXPERIENCE

- **Junior Quant Researcher** — Dec 2022 – Sep 2023
  Balaena Quant Sdn Bhd — *Kelana Jaya, Malaysia*
  - Worked with more than 1GB of **time-series** market data
  - **Researched and designed** minute-level statistical arbitrage algorithms for crypto derivatives
  - Wrote scripts to automate large-scale historical data insertion for crypto trading pairs

- **Machine Learning Intern** — June 2022 – Nov 2022
  Datasonic Smart Solutions Sdn Bhd — *Putrajaya, Malaysia*
  - Studied journal papers on **speech recognition and computer vision**
  - **Managed data from collection, manipulation and augmentation** for training ML models
  - Trained CNN's variant (YOLOv7) to perform card detection using PyTorch
  - Designed UI for an OAuth system and connected to backend using VueJS and Quasar

PROJECTS

- **Prediction of Advanced Prostate Cancer** — Statistical Analysis
  R Language — *Mar 2024 – Apr 2024*
  - Performed data analysis on real-life patient data: **boxplots, correlation, interaction plots**, etc.
  - Identified and dealt with **non-linearity** via **Box-Tidwell test**
  - Applied logistic regression to **model the impact of factors** on the probability of being diagnosed with advanced prostate cancer

- **Air Pollution Analysis in the US** — Statistical Analysis
  R Language — *Feb 2024 – Mar 2024*
  - Identified **multicollinearity** via flipping of signs in regression coefficients

- **Cost Analysis of Nuclear Plant Construction in the US** — Statistical Analysis
  R Language — *Feb 2024 – Mar 2024*
  - **Assessed model validity** by analysing model residuals
  - Improved model fit to **an R^2 of 0.92 and adj. R^2 of 0.85** by including interaction terms
  - Identified important factors that increased the cost of nuclear plant construction

- **Feedforward Neural Network From Scratch** — Machine 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

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]. ICHESMET 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 Full Academic Scholarship (foundation and bachelor's degree)
- Band 8.5 on a -band scale for IELTS 2022