Edward (Ying-Lun) Cheng

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EDUCATION

University College London (UCL) London, UK
MSc Machine Learning (First-Class Honours) *2021-2022*
- **Modules**: Supervised Learning, Machine/Robot Vision, Natural Language Processing, Data Mining, Applied ML

University College London (UCL) London, UK
BEng Electronics & Electrical Engineering (First-Class Honours) *2018-2021*
- **Modules**: Machine Learning, Intelligent Systems, Mathematical Modelling and Analysis, CNN/CycleGAN final project.

EXPERIENCE

CYENS London, UK
Deep Learning Intern *Jun 2022- Sep 2022*
- Implemented building detection using U-net based on TensorFlow and across 3 dataset to ensure consistency of model.
- Increased performance by 1 − 2% (metric used: Intersection over Union).
- Introduced an unique (not found in any of 30+ references reviewed, approved by supervisor) data augmentation technique (boundary addition) and post-processing (fake positive erosion).

PROJECTS

Quantitative Trading Web App with Options Analytics and ML-Based Sentiment Scoring *Jan 2024 – Present*
- Developed Python Flask web app leveraging option-implied volatility for technical analysis, price forecasting, and ML sentiment scoring using LightGBM.
- Achieved 37% average profit by trading major tech earnings events. Engineered data pipelines and Python visualizations to efficiently process data and analyze profit opportunities.

Stock Trading Strategy based on Moving Average/XGBoost/LSTM *Jan 2023 – Feb 2023*
- Researched and improved a trading strategy outperformed DCA by 84% (backtesting period ranged from 6 months to 6 years).
- Analysed and visualised the results (over 3 types of graphs to best represent different scenarios) for clear presentation.

Fake Review Generation and Classification via Large Language Models *Mar 2022 - Apr 2022*
- Built a SOTA level fake review classifier (91% accuracy) with sklearn pipeline.
- Developed a GPT-2 based review generator. Outperformed SOTA classifier, reducing the classification rate from 91% to 51%.

Emotional Voice Conversion *Nov 2020 - Apr 2021*
- Extended PyTorch CNN models and TensorFlow CycleGAN models. Achieved 2 deep learning voice conversion models that improves the Mel-cepstral distortion score by 13.4%.
- Self-taught most materials and topics required, including CNN, CycleGAN, Mel Spectrogram, parallel and non-parallel training, etc. Graded A by several academic supervisors.

PUBLICATION

"Proximity marketing and Bluetooth beacon technology: A dynamic mechanism leading to relationship program receptiveness", *Journal of Business Research, 141*, 151-162 (2021 SSCI IF: 10.969, JCR in Business 17/154, Q1).

CERTIFICATE & COURSE

Machine Learning Engineering for Production (MLOps) Specialization *(DeepLearning.AI)* *Aug 2023*
AWS Fundamentals Specialization *(AWS)* *Aug 2023*
DeepLearning.AI TensorFlow Developer *(DeepLearning.AI)* *Jul 2023*
Full Stack Deep Learning *(UC Berkeley)* *Apr 2023*

ADDITIONAL EXPERIENCE

University Representative Assistant Tainan, Taiwan
UKEAS (Study world spring exhibition) *Feb 2021 – Mar 2021*
- Ensured seamless communication between students and UK universities, resulting in 12 student sign-ups for orientation.

Physics Tutor Tainan, Taiwan
Self-employed *Feb 2021 – Mar 2021*
- Tutored high school physics. Student was accepted by Department of Electrical Engineering, National Taiwan University.

Physics Student Representative London, UK
University College London (UCL) *Sep 2017 – Jun 2018*
- Gathered, organised, and presented feedback from over 100 students. Re-designed remaining 3 coursework with professors.

SKILLS AND INTEREST

Technical skills: Python (scikit-learn, TensorFlow, PyTorch, NumPy, pandas, Matplotlib, Plotly), Flask, API, MLOps (CI/CD, git, docker), AWS, Cloud, computer vision, Excel, MATLAB, Java, Javascript, HTML, CSS, MySQL, LATEX, Multisim, RoboDK.
Languages: Mandarin (Native), Taiwanese Hokkien (Native), English (Fluent).