

Kuan-Lin Huang (Daniel)

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EDUCATION

Imperial College London

London, UK

MEng Materials Science & Engineering 2024 (GPA: 4.0/First Class Honor for 1st and 2nd Years)

- Linear Algebra, Data Analysis, Probability and Statistics, Python for Scientific Computing, Python for Machine Learning, Theory and Simulation, Accounting, Managerial Economics.

Wego Senior High School

Taipei, Taiwan

Advanced Placement 2017 - 2020 (GPA: 4.08)

- 5 for Calculus BC, 5 for Chemistry, 5 for Physics C Mechanics

EXPERIENCE

Imperial QT Capital Team

London, UK

Systematic Researcher

October 2022 - Present

- Presented and discussed academic papers or results in option pricing and stochastic processes, machine learning and computer science behind functioning market, and design of optimal execution algorithms.
- Identified potential data providers and wrote our own paper regarding our findings and contribution.

Technische Universität Dresden

Remote

Machine Learning Intern (Part-time/Full-time)

May 2022 – October 2022

- Optimized evolutionary algorithms by tuning hyper-parameters, validated with benchmark function.
- Explored surrogate modelling and built it using SMT to solve single- and multi-objective functions.
- Evaluated the performance of multiple surrogate models on the prediction of the movement (x & y positions) of a composite-based 2D soft robot from its original position.

Henry Royce Institute

London, UK

Undergraduate Research Assistan Full-time

June 2022 – August 2022

- Engineered colloidal lithography to create nanohole arrays for vaccine transportation and storage.
- Acquired trainings on SEM, RIE, DC Sputtering, Profilometer, FIB, Colloidal Lithography.
- Presented a literature review on the theory and application of colloidal lithography.
- Managed a five-step experiment that applied colloidal lithography (Polystyrene nanosphere) and controlled dimensions and density of nanopores to maximize the liposomes packaging.

LEADERSHIP EXPERIENCE

Imperial Taiwanese Society

London, UK

Events Officer

June 2021 – June 2022

- Coordinated a 100-person boat party collaborating with UCL, LSE, and UAL.
- Acquired sponsorship and partnered with BIJU to organize a DIY bubble tea event to promote Taiwanese values.
- Supervised collaboration plan, budget plan, venue booking sheet, marketing posts.

SKILLS

Language: Mandarin (Native)/ English (Fluent)

Programming Language: Python, SQL, Java

Frameworks: Scikit, Pandas, SciPy, NumPy, SMT, Pymoo, PyTorch, Tensorflow, Next.js, React, MongoDB

Tool: GitHub, Google Colab

PROJECT

Self-driving Car with Adaptive Cruise Control

London, UK

Computer Vision

October 2022

- Directed a group of four consist of a software engineer, two machine learning engineers and a robotics specialist.
- Designed the entity of a toy car that contained a Raspberry Pi, a camera, and two stepper motors.
- Developed machine learning algorithm that identified the rear end of the car in front and controlled the speed and direction to follow the car.

Machine Learning Classification

London, UK

Python for Machine Learning

June 2022

- Implemented supervised machine learning classification algorithms to predict the structure of 5000+ perovskite crystals with scikit-learn.

Python Simulation

London, UK

Python for Scientific Computing

December 2020

- Simulated a free-radical polymerization reaction with extensive use of object-oriented programming.

ADDITIONAL EDUCATION

Software Engineering and Machine Learning Workshops

London, UK

Google Developer Student Club

October 2022

Use of React with Next.js in npm, MongoDB and Docker, Understand and build a software similar to Trello, Familiarize with Tensorflow, Training Towards Performing Image Recognition

Algorithmic trading course (Imperial algoTradingSoc)

In-person

Imperial AlgoTradingSoc

October 2022

Financial Data with Pandas & Numpy, Implementing Simple Time Series Strategies, Basic & Advanced Machine Learning, Portfolio Optimization, Market Microstructure

Security Education Certificate

In-person

Imperial InvestmentSoc

October 2022

Macroeconomics and Foreign Exchange, Accounting and Valuation, Equities, Stock and Credits, Technical Analysis

Computer Vision and Image Processing Fundamentals

Online

IBM

September 2022

Image Processing with OpenCV and Pillow, Machine Learning and Deep Learning Classification, Object Detection

Deep Learning

Online

Li-Hung Yi (National Taiwan University)

April 2022

Introduction to Deep Learning, Gradient Descent, Image Processing, Advance of Self-supervised learning for NLP, Self-supervised learning for Speech and Image, Auto-Encoder, Attack, Network-Compression, Reinforcement Learning, Explainable AI, and Meta Learning.

INTEREST

Data science, ML/AI, programming, quantitative research, systematic trading, technology consulting, rowing, bouldering, cycling, reading