# SungYu Lin

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# EDUCATION

#### Nationanl Tsing Hua University

Hsinchu, Taiwan

Master in Electrical Engineering

Sep 2022 - Present

• Course: Advance Discrete Mathematic, Finance Technology, Machine Learning, Cryptography, Data-Mining, Deep Learning

# National Taipei University of Technology

Taipei, Taiwan

Bachlor in Electrical Engineering; GPA: 3.8/4

Sep 2017 - Jun 2021

• Course: Engineering Mathematics, Electronics, Circuits, Power electronics, DSP, Signal and System, Object Oriented Programming

#### SKILLS

Programming: Python, Javascript, NodeJS, React, SQL, Golang, HTML, CSS, C++, JAVA

Technologies: Web fullstack Development, Express, Webhook tools, AWS services, Docker, Automated testing

Framework, Object-oriented programming

Languages: Mandarin (Native), English (fluent)

#### Projects

# Transactions travel rule automated testing(python, nodeJS)

Coolbitx internship project

Oct 2023 - now

- Set up Docker containers for the development environment, including web server and database. Use docker-compose for orchestration and networking.
- Write pytest test cases to cover API functionality. Utilize pytest fixtures for environment setup and teardown.
- Use JMeter and k6 to simulate user scenarios and test web server performance under load. Monitor metrics like response time, throughput, and error rate.
- Monitor Docker container resource consumption (CPU, memory, network) using built-in tools or third-party solutions. Store monitoring data in a database for analysis.

#### Automation Test - Web server API test case flow design(nodeJS)

IKALA internship project

Apr 2023 - Aug 2023

- Developed a series of test cases and validation procedures to detect potential issues in the web server responses, such as missing fields, incorrect status codes, or invalid responses format. These tests ensured system stability and consistency in handling various scenarios.
- Developed and executed a rigorous testing strategy that achieved a 98% coverage, encompassing a wide range of network services.
- Collaborating closely with the backend department, the pass rate climbed from an initial 50.28% to an impressive 96.61%.

### Machine Learning - Tweets Emotion Recognition(python)

Undergraduate course project

Oct 2023 - Dec 2023

- Achieved 30th position out of 99 competitors in a Kaggle competition.
- Utilized data mining and text-mining techniques to filter the dataset.
- Identified important features in tweets that indicate sentiment, while avoiding redundant words.
- Conducted feature engineering to create new features by combining tweets and hashtags.
- Utilized a pre-trained BERT model to further enhance sentiment analysis accuracy.

#### Machine Learning - Mechanisms of Action prediction(python)

Undergraduate course project

 $Apr \ 2023 - Jun \ 2023$ 

• Introduced an innovative augmentation strategy that combined powerset oversampling and undersampling techniques. This approach generated diverse yet balanced training examples, addressing class imbalance while enriching the training dataset.

- Designed a neural network architecture that encapsulated both deep and wide aspects, enabling the model to capture complex relationships within the gene data.
- Achieved the remarkable feat of securing the first position in prediction accuracy among 13 participating teams.

## Line-Bot - NBA.com Web scraping(python)

Side project

Jan 2023 - present

- Used playwright and beautiful soup to implement the web scraping and used Line Bot to send back the each NBA games today.
- Used and learned AWS service be my back-end server in order to do the all logic operation then summarize all games into string.

#### Generation of solar panels prediction(python)

Undergraduate course project

Dec 2022 - Jan 2023

- $\bullet$  Processed the historical data by Exploratory data analysis, choosed the best feature engineering strategy in order to make the xgboost model have the fine result in ensemble learning. Race results in the top 30%
- Familiar with the data characteristic and how to observe the relation between features in real life. Understood the affection of "Lag data" when the type of dataset is time series .

#### WORK EXPERIENCE

## Coolbitx Ltd., Zhongshan, Taipei City

Taipei, Taiwan

DevOps Software Engineer R&D Intern

October 2023 - now

- Performed unit testing for new feature deployments to ensure functionality integrity and stability.
- Utilized AWS ECR cloud service to spin up virtual machines, monitored website performance, and promptly
  optimized as needed.
- Employed Docker to test new features to ensure compliance with CI/CD pipeline requirements.
- Developed automated test scripts to enhance testing efficiency for decreasing 10% testing time and increase testing covery for 5%.

#### IKALA Interactive Media Inc, Xinyi, Taipei City

Taipei, Taiwan

Quality Assurance Engineer R&D Intern

April 2023 - October 2023

- Established a comprehensive automated testing framework that simulated real-world scenarios and tested the RESTful responses of web servers. Reduced the need for manual testing, ensured consistency and accuracy in testing.
- Designed an intuitive test result reporting system, presenting test results in the form of charts and summaries. This allowed the development team to easily track pass rates, failure reasons, and the progress of fixes.
- Consistently optimized the testing framework and process based on feedback and newly discovered challenges
- Achievement: Successfully optimized the testing process to reduce testing time by 35% and increase test coverage by 50%