

# Hsiang-Jen Li RN

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## Education

### National Taiwan University of Science and Technology

Master's in Department of Computer Science and Information Engineering

- GPA: 4.02/4.3

Taipei, Taiwan

2024

### National Kaohsiung University of Science and Technology

Bachelor's in Department of Money and Banking

- GPA: 3.82/4.3

Kaohsiung, Taiwan

2022

## Work Experience

### Shanghai Commercial & Savings Bank - Digital Banking Department

Internship in SCSB Digital Banking

2023.07 ~ 2023.08

## Competition & Award

### Campus Fintech Innovation Challenge

Taiwan Academy of Banking and Finance

- Ranked as the 8th out of 187 teams

2022

### Joint Exhibition on Artificial Intelligence and Neural Networks

National Kaohsiung University of Science and Technology - Department of Electrical Engineering

- Ranked as the 1st out of an estimated 30 teams

2022

### Campus Achievement Exhibition

Fintech Space

- Competition's preferred choice

2020

## Side Project

### Learn Julia

- Learning Julia Programming Language with a series of scripts.

2024.01 ~ now

### Awesome Metaheuristic and its Applications

- A curated list of awesome metaheuristic and its applications resources.
- Including the basic concepts of metaheuristic, the application of metaheuristic, like Graph Neural Network and Graph Database.
- Also including the latest research papers about metaheuristic.

2024.01 ~ now

### Awesome Complex System and Network Science

- A curated list of awesome complex system and network science resources.
- Including the basic concepts of complex system and network science, the application of complex system and network science, like Graph Neural Network and Graph Database.
- Also including the latest research papers about complex system and network science.

2023.12 ~ now

### Evasion Attack in Machine Learning

- Trying to use evasion attack to attack the CNN-based malware detection model.
- Need to add noise to the malware sample to make the model misclassify the sample.
- The dataset is collected by ourselves (Using Cuckoo Sandbox and VirusShare).

2023.09 ~ 2023.12

### 2023 IT home Ironman Challenge - AI and Data

- In this challenge, I had written 30 articles about Network Science and Graph Neural Network.
- Including the basic concepts of Network Science, the application of Network Science, like Graph Neural Network and Graph Database.
- Also including the latest research papers about Graph Neural Network.

2023.09 ~ 2023.10

### Web Scraping : Social Network Crawler

- Using Dynamic Web Scraping Packages (Selenium, Playwright etc.) to crawl social network data.
- The data will be stored in MongoDB and can be used for further analysis.

2023.07 ~ 2023.08

### Graph-based : Keywords Recommendation System

- Applying Network Science field to build a keywords recommendation system.

2023.05 ~ 2023.06

### Taiwan Famous Ecommerce : Find Identical Products

- Finding identical products from item's name is a quite challenging task.
- Using Regular-Expression and CKIP-transformer to extract keywords from item's name.
- And using dimension-reduction and cluster algorithms to find identical products.

2022.11 ~ 2022.12

## Apriori J104

2022.05 ~ 2022.06

- An application for analyzing the skills required by the job market.
- The data is crawled from 104 job bank and stored in MongoDB.
- And the data will be processed by CKIP-transformer.
- Finally, using apyori algorithm to find the association rules between skills.

## Financial Public Opinion Analysis

2022.03 ~ 2022.06

- Using Django to build a web application for analyzing financial public opinion.
- The data is crawled from Anue and the data will be stored in MongoDB.

## Line-Bot : Stock Info

2020.10 ~ 2021.07

- A Line-Bot for getting the stock information.

# Research Interest

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## Complex Systems and Network Science

Recently

Unlike grid-like data structures, complex systems are composed by nodes and edges, which are more complicated for analysis and modeling.

## Metaheuristics

Future Plan

Metaheuristic is a bio-inspired algorithm that can be used to solve optimization problems.

## Distributed Computing

Future Plan

## Privacy-Preserving Machine Learning

Future Plan

# Skills

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**language** : python advanced , julia beginner , sql beginner

**website** : fastapi beginner , html beginner , bootstrap beginner

**tool** : git intermediate , docker intermediate

**CI/CD** : github\_actions beginner

**platform** : ubuntu intermediate , windows intermediate