

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

National Kaohsiung University of Science and Technology
Cross College Elite Tech Program - Data Science - Teaching assistant

2021.09 ~ 2022.01

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

NTUST LaTeX Template

2024.03 ~ now

DIMG4MD

2024.02 ~ 2024.02

- A Python package for automatically download the image from the markdown file and save it to the local folder.

Learn Julia

2024.01 ~ now

- Learning Julia Programming Language with a series of scripts.

Awesome Metaheuristic and its Applications

2024.01 ~ now

- 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.

Awesome Complex System and Network Science

2023.12 ~ now

- 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.

Evasion Attack in Machine Learning

2023.09 ~ 2023.12

- 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 IT home Ironman Challenge - AI and Data

2023.09 ~ 2023.10

- 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.

Web Scraping : Social Network Crawler

2023.07 ~ 2023.08

- 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.

Graph-based : Keywords Recommendation System

2023.05 ~ 2023.06

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

Taiwan Famous Ecommerce : Find Identical Products

2022.11 ~ 2022.12

- 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.

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

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

language : Python advanced , Julia beginner , SQL beginner , LaTeX beginner

website : FastAPI beginner , HTML beginner , CSS/SCSS beginner , Bootstrap beginner

tool : Git intermediate , Docker intermediate

CI/CD : Github Actions beginner , MLflow beginner

platform : Ubuntu intermediate , Windows intermediate