

# MIN-YI CHEN

Personal website : <https://ccminyi.github.io>  
+886 905 559 321 ✧ minyi0102@gmail.com

## EDUCATION

---

<b>National Chengchi University</b>	Taipei, Taiwan
B.S. in Statistics, Overall GPA : 4.00/4.00, Ranking : 4/58	Sep. 2020 - Jun. 2023
<b>Central University of Finance and Economics</b>	Beijing, China
International Business, Overall GPA : 81.74/100.00	Sep. 2018 - Jun. 2020

## PUBLICATION AND WORKING PAPER

---

Ting-Li Chen, Elizabeth Chou, Min-Yi Chen and Fushing Hsieh (2022). Dynamic characteristics of Covid-19 daily infection rates across administrative districts and their age-groups in Taiwan. [[Paper](#)] [[Shiny](#)]

## RESEARCH EXPERIENCE

---

<b>Institute of Statistical Science, Academia Sinica</b>	Jun. 2022 - Present
<i>Part-time Research Assistant</i>	<i>Employer Dr. Ting-Li Chen</i>

- Smoothing and visualizing data with R and RShiny for research in human behaviour behind Covid-19.
- Study MCMC under the guidance of Dr. Ting-Li Chen.

<b>Ministry of Science and Technology Research Project</b>	Feb. 2022 - Feb. 2023
<i>Undergraduate Researcher</i>	<i>Advisor Dr. Han-Ming Wu</i>

Title : On the estimation of the weight parameters of the multi-SNE using the gradient descent [[Paper](#)] [[Code](#)]

- Designed an objective function for parameters estimation and prove the method converges at the rate of  $O(1/k)$ .
- Conducted experiments on synthetic and real data sets to show the effectiveness and robustness of my method.

## WORKING EXPERIENCE

---

<b>Institute of Statistical Science, Academia Sinica</b>	Feb. 2022 - May 2022
<i>Data Science and Statistic Cooperative Intern</i>	

- Used Statistical Method and Visualizing Skills to analyze real data from industry.
- Analyzed and predicted the edge up Covid cases in Taiwan with time series methods.

## PROJECTS

---

<b>Is manifold learning reversible ?</b>	Jun. 2022 - Present
<a href="https://ccminyi.github.io/manifold.html">https://ccminyi.github.io/manifold.html</a>	

Designed an experiment on reversibility in manifold learning with the Swiss Roll dataset.

I have some preliminary results but the thickness of the Swiss Roll is thinner than expected.

<b>League of Legends - Analysis and Prediction</b>	Dec. 2020 - Jan. 2021
<a href="https://github.com/CCMinyi/LOL-DS-Analysis-Prediction">https://github.com/CCMinyi/LOL-DS-Analysis-Prediction</a>	

- Analyzed winning factors and predicted match outcomes with Decision Tree, Naive Bayes, Random Forest, and SVM; Evaluated the performance with cross-validation, accuracy, AUC, and various metrics.

Developed interactive visualizing results via **R** and **Shiny**

- Voted the best project out of 12 groups in Data Science class.

## HONORS/AWARDS

---

<b>Academic Excellence Award</b> (top 5% of class in semester)	May 2022
<b>Taishan Academic Scholarship</b>	Oct 2021
<b>Certificate of Merit in Calculus A General Examination</b> (Ranked seventh among all students in the university.)	Jan 2021

## RELEVANT COURSES

---

Topics in Mathematical Statistics (PhD course)

**Textbook:** Mathematical Statistics by Jun Shao

Real Analysis (midterm score : 90)

**Textbook :** Real Analysis Fourth Edition by H.L.Royden and P.M. Fitzpatrick

Probability and Measure theory

**Textbook :** The Theory of Probability by Santosh S. Venkatesh, Cambridge University Press

Bayesian decision analysis and Bayesian network

Image Processing

Nonparametric Function Estimation

Mathematical Statistics

PyTorch and Machine Learning

Multivariate Analysis

Regression Analysis

Time Series Analysis

Data Science

## LEADERSHIP

---

**Google Developer Student Club, NCCU**

Sep. 2020 - Jan. 2021

*Team leader of recommender system group*

- Led my team to build an item-based recommender system with matrix factorization and deep-learning methods.

**Tennis Club, CUFE**

Sep. 2019 - July. 2020

*President*

- Host a school-level tennis tournament and participate in over 100 divisions.