# Wen-Kai Chung

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## **Education**

#### National Taiwan University (NTU)

Taiwan

Major: Bachelor of Science, Department of Mathematics

2010-2014

Double Major: Bachelor of Arts in Economics, Department of Economics

• Overall GPA 1.8 (Taiwan 3.53/4.3)<sup>1</sup>

2010-2014

 $\circ$  Economics GPA 1.49 (Taiwan: 3.83/4.3)<sup>2</sup>

• Presidential Awards Twice (Top 3 in semester)

Overall Rank 10<sup>th</sup>/83

## Honors

## Chien Shih-Liang Scholarship, NTU

May 2014

o I am awarded one out of two from College of Science around 3000 people.

#### Summer School Program Subsidy, Institute of Math, Academia Sinica

Aug 2013

• I am awarded one out of fifteen people among admitted applicants.<sup>3</sup>

## Research and Working Experiences

#### Institute of Information Science, Academia Sinica

Taiwan

Research Assistant, Natural Language Processing and Sentiment Analysis Lab

Feb 2018-Jan 2019

- o Trained a deep neural network to identify company aliases and abbreviation names in news.
- o Trained a model to predict the relationship (upstream/downstream/competitor) between two given companies by constructing multi-relation knowledge graph of words from news data (Publication [a]).
- O Supervisor: Associate Research Fellow Lun-Wei Ku, PhD

## Department of Economics, NTU

Taiwan

Research Assistant, Coordination in Social Network Project

Jun 2016-Aug 2017

- Performed literature review related to Microeconomics and Game theory.
- o Disproved some claims and gave insight when modeling a infinite repeated k-threshold game that tries to capture strong discontents from citizens through rebel information transmission of a regime.
- o Supervisor: Assistant Professor Chun-Ting Chen, PhD

#### Treasury Marketing Unit, Taichung Commercial Bank

Taiwan

Product Manager

Feb 2016-May 2016

- o Predicted foreign market by compiling 100 news, economic indices and 7 major currencies per day.
- o Calculated the amount of financial derivatives by Excel VBA, which improved efficiency of daily work.

# **Undergraduate Experiences**

#### Institute of Mathematics, Academia Sinica

Taiwan

Teaching Assistant, Summer School Program of Mathematical Finance and Technology Jul 2014, 2016, 2017

- Proved a property of a financial derivative by using MATLAB<sup>4</sup>.
- o Supervisor: Associate Professor Ju-Yi Yen, PhD

#### Taoyuan Senior High School

Taiwan

Math Lecturer, Taiwan Regions Math League (TRML) Competition

Feb 2013-Aug 2013

o Led a group of 15 students to be ranked local top 3 in TRML competition, which contains calculus, basic algebra and probability.

## **Publications**

[a]. Upstream, Downstream or Competitor? Detecting Company Relations for Commercial Activities, Yi-Pei Chen\*, Ting-Lun Hsu\*, Wen-Kai Chung\*, Shih-Chieh Dai, Lun-Wei Ku, Human-Computer Interaction International Conference 2019: Business, Government and Organizations (\*equal contribution)

#### Skills

Programming: Python (PyTorch), Linux Bash, SQL, LaTeX, C++, STATA, MATLAB, Excel VBA Languages: Mandarin Chinese (Native Fluency); English (CEFRL B2); German (CEFRL A2)

 $<sup>^{1}</sup>$ Taiwan GPA 3.53 is certified by my transcript. Bavarian formula is used for grade conversion.

<sup>&</sup>lt;sup>2</sup>I calculated Economics GPA by only considering those courses with Course No. ECON, Acc and IB in my transcript.

 $<sup>^3</sup> Please \ refer to section V in https://tinyurl.com/y93m3h92$ 

<sup>&</sup>lt;sup>4</sup>Approximation of a Financial Derivative's Expected Return (PDF file): http://tinyurl.com/y99x2hqx