Yu-Chi (Ashley) Chen

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EDUCATION

University of Illinois at Urbana-Champaign Aug 2019 – Dec 2020
Master of Science in Financial Engineering
Courses: Machine Learning in Fin Lab (Python), Risk Management, Optimization in Finance, Statistical Methods in Finance (R)

University of Illinois at Urbana-Champaign Jan 2017 – May 2019
Bachelor of Science in Actuarial Science
Honors: Dean's List Fall 2018, Spring 2019

ACTUARIAL EXAMS

Exam IFM – Investment and Financial Markets **Passed, Nov 2020**
Exam FM – Financial Mathematics **Passed, Aug 2018**
Exam P – Probability **Passed, Jul 2017**

PROFESSIONAL EXPERIENCE

Nan Shan Life Insurance Co., Ltd (The Third Largest Insurance Company in Taiwan) **Taipei, Taiwan**
Actuarial Intern in Investment-Linked Product Development Department Jun 2020 – Aug 2020

- Built stochastic model and implemented Monte Carlo Simulation method to predict 1,000 possible future account values in order to price Guaranteed Minimum Death Benefit (GMDB) and Guaranteed Minimum Maturity Benefit (GMMB) products
- Conducted sensitivity analysis on how 1% change in assumptions, such as expected return and volatility, would affect the value of the guarantees in variable annuity products
- Provided a 15-minute individual presentation on the final project regarding guarantees in variable annuity products in front of the vice president and 6 managers from different actuarial departments
- Compared 5 variable annuity products from different countries based on their benefits and charges, which helped the department design products offering more options for the policyholders
- Researched on how COVID-19 affects the market and profit/loss on guaranteed products using 6-months of historical data on 5 different indices and insurance companies' quarterly financial reports

Cathay Life Insurance Co., Ltd (The Largest Insurance Company in Taiwan) **Taipei, Taiwan**
Actuarial Intern in Product Development Department Jun 2019 – Aug 2019

- Designed a new life insurance for fetus which provides coverage on 45 congenital major diseases and 5 mental diseases, previously mental disease had never been considered in life insurance policies in Taiwan
- Assisted in building and generating pricing model using Excel for several health insurance policies
- Analyzed the demand and the costs for palliative care at home, and provided 3 different solutions on how the original policy may be changed to benefit the policyholders

PROJECT HIGHLIGHT

RCM Alternatives **Chicago, IL**
Trading at Settlement (TAS) and Underlying Futures Contracts Aug 2020 – Dec 2020

- Analyzed the relationship between TAS and underlying crude oil futures contracts using 12-month trading data and wrote technical documentation
- Used Python to build a model predicting price change of underlying crude oil futures contracts from the trading volume of TAS contracts within 1-minute, 5-minute, and 10-minute intervals
- Visualized the distributions of order imbalance of 100-tick buckets and bid-ask spreads during the settlement period in order to select significant features to predict the trading volume of crude oil futures

Illinois Risk Lab **Champaign, IL**
Practical Implementation of Optimal Reinsurance under Distortion Risk Measures Aug 2017 – Dec 2017

- Studied 4 reference papers to have a better understanding of risk and reinsurance contracts, especially focusing on stop-loss, quota-share, and change-loss functions
- Used MATLAB to conduct numerical analysis to discover how certain criteria affect the optimal solution

LEADERSHIP EXPERIENCE

Nan Shan Life Insurance Co., Ltd **Taipei, Taiwan**
Team Leader of Business Innovation Competition Jun 2020 – Aug 2020

- Led 7 team members brainstorming on how Artificial Intelligence and blockchain could help accelerate the process of underwriting and claim settlement, and won the 2nd prize of the competition
- Delegated tasks effectively based on each member's talents and tracked progress by holding a 30-minute meeting each week

SKILLS

- Programming & Software: R, Python, C++, Latex, Microsoft Office, Bloomberg, SQL, MATLAB