

Siwon Lee

Email : lsw021228@g.skku.edu
Mobile : +82-10-4938-6605

Linkedin: <https://www.linkedin.com/in/siwon-lee-4a543520a/>
Site: <https://siwon-mathnote.kro.kr/Profilen>

I want to forecast economic and social phenomenon, moreover analyze and explain people's action and economic pattern. In this progress, I want to connect artificial intelligence method specially explainable AI.

EDUCATION

Sungkyunkwan University

B.A. in Global Economics, BIT Soft Engineering, B.Math Mathematics

Seoul, Korea

Mar 2021-Ongoing

- Anticipated Graduation Date: Aug 2024
- Cumulative GPA: 4.16/4.5, Global Economics: 4.31/4.5, Software: 4/4.5, Mathematics: 3.94/4.5
- Relevant Course: Econometrics, Differential Geometry 1, Basic Mathematics for Artificial Intelligence, Analysis 1, Combinatorics and Graph Theory, Game Theory, INT macro/Micro theory, Intro Financial Accounting

LUSEM & HANKEN University

Joint Winter Exchange School

Sweden and Finland

Jan 2023-Jan 2023

- Visited KPMG corporation in Helsinki and discussed sustainability
- Discussed critical thinking and examples of sustainability in each country

WORK EXPERIENCE

Wisdomagora

Editor Management Intern

Seoul, Korea

Aug 2022 - Aug 2023

- Planned online article upload schedule and checked image copyrights.
- Edited online article content for business and economic sector written by other countries' international high school students.

Computational Thinking and Software Coding TA

Teaching Assistant

SKKU, Korea

Feb 2023 - Jun 2023

- Graded students' code and received question related to course.
- Feedback each student's regular and extra studies, and suggest new ideas.

SKKU International Summer Semester TA

Teaching Assistant

SKKU, Korea

Jun 2022 - Jul 2022

- Communicated between professor and director related to lecture course or attendance problem
- Supported culture event as orientation or graduation targeted to exchanged student

RESEARCH PROGRAM

Global Economic Individual Research 1

Team Member

SKKU, Korea

Jun 2022 - Jul 2022

- Solving Solow model problem using numerical method and Python NumPy library
- Researched Solow model with changing several model's assumption such as s is constant
- Analyzed United States economic data using FRED API and Python

Global Economic Individual Research 2

Team Member

SKKU, Korea

Feb 2023 - Jun 2023

- Analyzed similarity between 2008 financial crisis and currently economic intensification related to pandemic and war.
- Using TVP-FAVAR model, analyze FCI and macro economic index based on "The Term Structure of Growth-at-Risk"
- Analyzed using statistical model of TVP-FAVAR model changed variables using Python.

TEACHING EXPERIENCE

Young Economic Education Supporters

Teacher

Bank of Korea, Korea

Apr 2023 - Dec 2023

- Lectured elementary school and middle school student on role of BOK, currency and inflation, and history of currency.
- Lectured didactics and made material of lecture.

Sungkyun Tutoring

Mentor

SKKU, Korea

Mar 2022 - Dec 2022

- Built note when used Python language tutoring and designed programming problems
- Educated concept of list, loop, and function and thinking method of algorithm
- Coached student's programming code and revised or assisted their code

EXTRACURRICULAR ACTIVITIES

Becoming Economist

Vice President, Team Member

SKKU, Korea
Mar 2022 - Ongoing

- reviewed several economic articles related to estimated of schooling, Rouwenhorst Method, and hyperbolic discount function.
- Constructed english certification study as TOEFL an GRE.
- Prepared study abroad as doctor programm with OB meeting

MIMIC

Team Member

SKKU, Korea
Sep 2022 - Ongoing

- Communicated mathematic thoerm such as four color theorm in regular seminar
- Studying regular lecture as binominal mathematic or linear algebra.
- Lectured Nash's existence theorem and minimax theorem of Von.

Seekers

Team Member

SKKU, Korea
Mar 2022 - Ongoing

- Debated economic and social issues as Middle Interest Rate, Global Supply Chain, and others.
- Participated mentoring with senior graduated of SKKU economic department.

Statistical Analysis for Economics Study

Team Leader, Third Prize

Global Economics, SKKU
Mar 2022 - Jun 2022

- Defined null hypothesis and calculated hypothesis's confidence level and t-value
- Analyzed difference between standard normal distribution, khi distribution, and t distribution
- Calculated number of cases and probability as binominal, poisson distribution

Global Lealers in Finance(GLIF)

Team Member

Seoul, Korea
Mar 2021 - Ongoing

- Summarized important economic indicators such as S&P 500, KOSPI, and WTI rates to last market trends
- Abstract and translate daily articles from *WSJ*, *FT*, and *BB* in the field of macroeconomic news
- Structured fictional customer's portfolid and Analyzed Mezzanine and non-list company in an Academic-affiliated program

PROJECT

Analzed relationship between COVID-19 and trade

Team Leader

SKKU, Korea
Apr 2022 - Jun 2022

- Collected and analyzed COVID-19 data and international trade data using python
- Learning OLS regression with several different equation

Calculate Derivates and Options Expected Value

Team Leader

SKKU, Korea
Sep 2022 - Dec 2022

- Understand basic financial markets and modeling, in particular, black-scholers model and binary price determinant model.
- Construct new price forecasting model using LSTM, and multiple ANN method.
- Analyze and select significant economic variable using classical macro models and algorithms.

Learning-Fair

Colleague Depart. Dean's Awards

SKKU, Korea
Sep 2021 - Nov 2021

- Assembles firm's financial statement, stock price, and trading volume data then standardized to excel data
- Implemented mock investment and classify investor tendency program using python library of pandas, mpl-finance

Project of Convergence Basics

Team Member

SKKU, Korea
Jun 2021 - Aug 2021

- Designed new items, using design thinking process as lottos-blossom & prototype test
- Collaborated with co-workers and delivered in front of professors and the CEO

Calculated Production Possibility Function

Team Member

SKKU, Korea
Apr 2021 - Jun 2021

- Calculated production possibility function on two different products and labor
- Solved feasible problem when gives each products price and budget line

AWARDS

2022 SKKU Annual Conference on Economics

SKKU, Korea

Top Prize

Jun 2022 - Aug 2022

- Analyzed neuron network method for economic research and comparison forecast efficiency to classical econometrics model.
- Tested several neuron network and econometrics model using past 50 years U.S. statistical data.

2022 Capston Design and AI Hackerton

The Korean Association of Computer Education

Encouragement Prize

Oct.13.2022

- Structured business canvas about new business item based on financial market and AI.
- Implemented AI model and front web design using R, LSTM, and time-series data.

Sungkyun tutoring

SKKU, Korea

Excellence Prize

Aug 2022 - Dec 2022

Facebook Hacker Cup 2021

Facebook, Online

Round 2

Aug 2021 - Sep 2021

Samsung Collegiate Programming Cup 2021

Samsung, Online

Round 2

Jul 2021 - Sep 2021

Analyzing of Big Date contest by NH investment

NH investment

Participation Prize

Nov 2022

2022-1 Dean's List

SKKU, KOREA

REPORT

Forecasting Inflation and Economic Recession: Comparison of Econometrics and Machine Learning

Aug 2022

College of Economics

- Analyzed and forecasting inflation and GDP using ANN and classical econometrics method
- Reviewed progress and output of ANN model and econometrics model

Forecasting Changing Phase of Financial Market When Implementation CBDC

Feb 2022

DB financial investment

- Researched property of bonds, stocks, and currency swap future
- Calculated value and risk of financial products using value evaluation equation

Implementation of CBDC to Reduce Public Antipathy of Privacy Violations

Aug 2021

College of Economics

- Analyzed public's dislike about private invasion any CBDC type and monetary policy
- Reviewed each CBDC type how work possible and impossible

Creating Post COVID-19 Jobs by Maintaining and Changing Industries that Grown by COVID-19

May 2021

Department of Global Economics

- Analyzed property of medical and online industries and proposed method of maintain of grown by COVID-19

CONFERENCES ATTENDED

International Conference on Einstein and Harmonic Manifolds

SKKU and Samsung, Korea

Participation

19-22 Jun 2023

MATLAB Expo Korea

MATLAB, Korea

Participation

Jun 2022

2022 SKKU International Conference: Trends in Digital Economy and Finance

SKKU., Korea

Participation

May 2022

SCHOLARSHIP

Scholarship for Academic Excellence

Feb 2022

Scholarship for Academic Excellence

Aug 2022

ADDITIONAL INFORMATION

Achivements: TESAT Grade 2, ADsP, Certification of Cody Joint Event(MATLAB)

Skills: Programming(C, Python, HTML, MYSQL, Latex), MS Office(PowerPoint, Excel), Mathematica, Premiere Rush

Languages: Korean(Native), English(Intermediate)

Interests: Artifical Intelligence, Machine Learning, Financial Market, Economics Recession, Heterogeneous-Agent

Hobby: Table Tennis, Listening Music, Watching NBA

Strengths: Enthusiasm, Curiosity, Punctual, Trustworthiness, focused