MIN HYUNG GYU

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EDUCATION

Sep 2020 - Present **Yonsei University**, Seoul, Republic of Korea
Master of Arts, Statistics
GPA: 4.26/4.30 **(4.00/4.00)**

Mar 2014 - Aug 2020 **Yonsei University**, Seoul, Republic of Korea
Bachelor of Arts, Applied Statistics
Stat & Math GPA: 4.11/4.30 **(3.91/4.00)** Overall GPA: 3.66/4.30 **(3.54/4.00)**

STANDARDIZED TESTS

TOEFL iBT **101/120**: 30/28/23/20 (R/L/S/W)
GRE General Test **V 161** (88%)/ **Q 169** (94%)/ **W 3.5** (37%) February 26, 2021

FIELDS OF INTEREST

Dimension Reduction, Quantum Machine Learning, Non Parametric Model, Deep Learning Theory, Optimization

Relevant Coursework

- Dimension Reduction Theory
- Bayesian Statistics
- Big Data Case Studies
- Big Data - Quantum computing
- Statistical Computing
- Mathematical Statistics
- Theory Of Deep Learning
- Generalized Mixed Models
- Analysis 1

Relevant Study Experience

Quantum Computing - Sutor, R. (2019). Dancing With Qubits. Birmingham,UK:Packt.
Quantum Machine Learning - Schuld, M. & Petrucionne, F. (2019). Supervised Learning with Quantum Computers,Cham, Switzerland:Springer
Theory of Hilbert Space - Debnath, L.& Mikusinski, P. (2005). Introduction to Hilbert Space.London,UK.:Elsevire Academic Press
Abstract Integration - Rudin, W. (1987). Real and Complex Analysis.Singapore:McGraw-Hill.
Convex Optimization - Boyd,S. & Vandenberghe, L. (2004) Convex Optimization.Cambridge, UK.
RKHS - Li, B. (2018). Sufficient Dimension Reduction. Boca Raton,FL:CRC Press.
Bayesian Statistics - Gelman, A.,Carlin, B.J.,...,& Rubin,D.B. (2021). Bayesian Data Analysis.Boca Raton,FL:CRC Press.

WORKING PAPERS

Interpretable Deep Learning **Estimating Predictive Distribution using Hybrid Deep-SDR**
In preparation
- A research for interpreting deep learning using sufficient dimension reduction method
- Applied sufficient dimension reduction techniques to last layer of neural network
- Used for estimation of predictive distribution, visualization of results, analysis for cluster of data points, detection of outlier

Quantum machine learning **SDR Classification with quantum kernel**
In preparation
- A research for interpreting deep learning using sufficient dimension reduction method
- Applied sufficient dimension reduction techniques to last layer of neural network
- Used for estimation of predictive distribution, visualization of results, analysis for cluster of data points, detection of outlier

AWARDS AND HONORS

Aug 2021	Certificate of Quantum Excellence for 2021 Qiskit Global Summer School on Quantum Machine Learning
May 2019	Excellence Prize for 2019 Embrain Panel Big Data Analysis Competition
Fall 2019	Honors (Yonsei University)

TEACHING EXPERIENCES

Yonsei University	**Teaching Assistant** for Big Data - Quantum computing (graduate, Fall 2021)
Sep 2021 - present	- Dr. *Hakbea Lee*
Yonsei University	**Teaching Assistant** for Multivariate Analysis (Undergraduate, Fall 2021)
Sep 2021 - present	- Dr. *Hakbea Lee*
Yonsei University	**Teaching Assistant** for Statistical Data Analysis (Undergraduate, Spring 2021)
Mar 2021 - June 2021	- Dr. *Hakbea Lee*
Yonsei University	**Teaching Assistant** for Introduction to Statistics (Undergraduate, Fall 2020)
Sep 2020 - Dec 2020	- *Instructor Ho Gyu Lee*

EXTRACURRICULAR ACTIVITIES

Yonsei University	**Institute of Data Science**
Mar 2021 - Present	Consulting Assistant Director: Dr. Hyun Tae Kim - Assisted constructing consulting program as a founding member of renewed institute - Consulted graduate students about Academic statistical method for their paper e.g. Study for comparing efficiency of micro-needle or Study for correlation between acceptance rate of bill and governments
Yonsei University	**Data Science Lab(DSL)**
Jan 2019 - Dec 2020	Director of Academic Affairs Advisor: Dr. Tae Young Park (Yonsei University) - Undergraduate academic club for studying data science and statistical theories - Act as a founding member and constructed several programs for study and experience - Opened class for undergraduate students e.g. Bayesian Statistics, Convex Optimization

PROGRAMMING SKILLS

Python(;Qiskit, Scikit-Learn, Keras), R(;RCPP, Shiny)

REFERENCES

Dr. **Hakbea Lee**	hblee@yonsei.ac.kr
Department of Statistics	Professor
Yonsei University	

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