**Sojin Kim**

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**Education**

**Ph.D. in Statistics**  **Mar 2022 - Present**

*Ewha Womans University, Seoul, South Korea (Advisor: Jongwoo Song)*

* Scholarship: Received scholarship for 1 semester (Spring 2022)
* Expected graduation in Feb 2025

**Master of Science in Statistics** **Mar 2020 – Feb 2022**

*Ewha Womans University, Seoul, South Korea (Advisor: Jongwoo Song)*

**Bachelor of Business Administration, Double Major in Statistics** **Mar 2014 – Aug2018**

*Ewha Womans University, Seoul, South Korea*

**Research Experience**

**Data Mining Research Lab in Ewha Sep 2020 - Present**

*Graduate Research Assistant*

Advisor: Jongwoo Song

* Developed an algorithm for Cost-Sensitive Learning for imbalanced data classification
* Developed a classification model for tabular data
* Applicated machine learning methods and Monte Carlo methods in option price prediction
* Applicated RNN for movie rate prediction using text data
* Applicated Neural Network (TGNet) for spatio-temporal data
* Participated in developing a semiparametric regression model for a survival analysis

**Institute for Software Research | Carnegie Mellon University, Pittsburgh, U.S.** **Aug 2022 - Feb 2023**

*Visiting Student*

* Coursework: Introduction to Deep Learning, Large Scale Multimedia Analysis, Machine Learning and Game Theory, Natural Language Processing
* Developed a motion transfer algorithm using 3d mesh (Simplpix, Simplify-X)
* Developed an algorithm for de-blurring stereo images (DAVANet, DeblurNet)

**Division of Media | Ewha Womans University, Seoul, South Korea** **Apr 2023 - Feb 2024**

*Research Assistant*

* Character classification in children’s animation using object detection (Yolov8, Faster R-CNN)
* Object detection in Korean dramas (Yolov8)

**Work Experience**

**Lotte Mart | Seoul, South Korea Aug 2018 – Feb 2020**

*Associate, Big Data team*

* Analyzed sales and customer data for marketing

**Publications**

**Sojin Kim** and Jongwoo Song. (In preparation). TabClassNet: A New Classification Method for Tabular Data Using Convolutional Neural Network

**Sojin Kim** and Jongwoo Song. (accepted). Analysis of Imbalanced Data using Cost-Sensitive Learning. Communications in Statistics - Theory and Methods.

**Sojin Kim**, Jimin Kim and Jongwoo Song. (2024). Option Pricing and Profitability: A Comprehensive Examination of Machine Learning, Black-Scholes, and Monte Carlo Method. Communications for Statistical Applications and Methods.

Seongjoo Song, Sulah Kwon, Siyoung Lee, **Sojin Kim** and Jongwoo Song. (submitted). Semiparametric regression model for survival data. Computational Statistics & Data Analysis.

**Sojin Kim** and Jongwoo Song. (2022). Semantic Analysis via Application of Deep Learning using Naver Movie Review Data. The Korean journal of applied statistics.

**Additional Information**

* Certificates: Big-Data Analysis Engineer, ADsP, Computer Specialist in Spreadsheet & Database Level-1
* Languages: Korean, English (TOEIC 945), Japanese (JLPT N3)