

## Statement of Purpose

Optimization problem and deriving meaningful numbers from data is one of the most demanding issues of present day. I find that researches in the field of economics have been granted many tools such as machine learning and sentiment analysis to keep up with this trend. I have always had a strong academic enthusiasm for the field of data science and had been preparing for it in multiple way.

I have a strong foundation in data analysis and find that I am well-suited for data science career. I was selected as a dual degree student to earn two bachelor's degree from Indiana University and Sungkyunkwan University, Korea. I chose to major in economics and minor in informatics to pursue this area of research in data science. From sophomore years, I was awarded in researches with topics such as "Korean Legal Cap on Phone Subsidies" and "[indie-film audience prediction](#)" at Sungkyunkwan University informatics research competition.

My latest research focused on optimally "[visualizing a regression data](#)". It was in a continuation to a formal research "[indie-film audience prediction](#)", to improve its academic value. The original research solely focused on regression and concluded that domestic movie enthusiasts' opinion and foreign index was not significant on predicting the number of audiences of indie-film that are imported to Korea. It also revealed and discussed how other variables impacted the regression model. In the new project, in addition to the visualizing part, it elaborates the effect of the genre being an "Animation" on other variables and the number of audience. Although they both hold their own academic value, I felt academic thirst that I need more skills and knowledge to produce more impactful result. I would like to perfect myself with the curriculum offered at Data Science Master's program at Johns Hopkins University, participating in a research such as "Statistical Arbitrage via News Sentiment Data Analysis (Naiman)".

Although it may look like I lack some programming skills or mathematical backgrounds according to my university transcript, I do have practical achievements that stands out. I created a shuttle bus tracking app with a real-time arrival time prediction for Sungkyunkwan university and still manage it. I created a high-quality game using physics engine, outsourced full functioning websites and self-taught machine learning. I also scored 115 out of 120 on TOEFL in 2012 during my high school years.

I believe that my research experiences regarding data analysis and a unique background can make a significant and positive contribution to the research currently being conducted at Data Science program of Johns Hopkins University. I very much look forward to start my research career at Department of Applied Mathematics & Statistics of Johns Hopkins University.