

## Statement of Purpose

Optimizing and deriving meaningful numbers from data is definitely one of the most important problems in this decade. Especially, researches in economics field was granted with many tools such as machine learning and sentiment analysis to keep up with this trend. I have a strong academic enthusiasm in this field and had been preparing for it in a various ways.

I have well-suited backgrounds on data science research. I was chosen 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 informatics to pursue this area of research in data science. From sophomore years, I was awarded in researches with topics such as "Legal Cap on Phone Subsidies" and "[indie-film audience expectation](#)" at Sungkyunkwan University informatics research competition. I believe my economics background will function as a powerful basis and synergize with my diverse programming experience.

My latest research focused on optimally "[visualizing a regression data](#)". It was in a continuation to a formal research "[indie-film audience expectation](#)", 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 discusses 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 stand out. I created a shuttle bus tracking app with a real-time arrival time prediction for Sungkyunkwan university and I still manage it. I created a high-quality game using physics engine, outsourced full functioning websites and self-taught machine learning.

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.