Sungho Lee

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EDUCATION

University of Southern California – Los Angeles, CA   Jan. 2021-Expected Dec. 2022
Master of Science in Applied Data Science, GPA: 3.80/4.00
- Relevant Courses: Machine Learning for Data Science, Foundations of Data Management, Analysis of Algorithms, Data Science at Scale, Intro to Computational Thinking and Data Science

University of Wisconsin – Madison – Madison, WI   Sep. 2008-May 2014
Bachelor of Science in Statistics and Certificate in Mathematics, GPA: 3.44/4.00
- Relevant Courses: Applied Regression Analysis, Applied Categorical Data Analysis, Introduction to Time Series, Data Analysis with R, Introduction to Stochastic Processes

SKILLS

Programming Language	: Python(Pandas, Numpy, Scikit-learn, Keras, TensorFlow, Matplotlib), R, Java, SAS, and VBA
Web Development	: Django, HTML, XML, CSS
Database	: SQL, MySQL, MongoDB, AWS RDS, Apache Spark

WORK EXPERIENCE

Junior Professional, Samsung Fire and Marine Insurance Company – Korea   Jan. 2015-Jul. 2020
Commercial Lines Development Department
- Conducted pricing of newly launched mobile device insurance using linear regression model based on repair history

Commercial Lines Actuarial Department
- Led monthly reporting for Natural Catastrophe (Nat Cat) Risk Management
  - Performed catastrophe risk modeling in Touchstone and Catrader software to estimate the Nat Cat Probable Maximum Loss (PML) of major risk areas based on in-force property insurance data
- Estimated the outstanding loss of specific Nat Cat by extracting millions of contract data from database using SQL to accomplish real-time risk assessment
- Developed and automated Korean Nat Cat PML estimation tool (financial module) using Python and VBA

Intern, Korea Asset Pricing – Korea   Jul. 2012-Aug. 2012
Korean Bond Pricing Team
- Coordinated a project with 5 number of teams to analyze and compare target bonds and ratings using VBA

ACADEMIC PROJECTS

Building a Web UI Based Machine Learning Tool for Hospitalization Data * *click title to view the website*
- Created Web UI using Django for non-technical users to be able to upload database in AWS S3, handle and extract features for machine learning via Apache Spark.

Analysis of Cyber Phishing E-Mails
- Led a group of six people to design a classifier to detect cyber phishing e-mails using features such as a phisher's location, email sentiment, and email language style.
- Utilized openAPI and several NLP packages in python to run clustering algorithm based on Jaccard Similarity
- Visualized features and clusters using D3.js

Analysis of Breast Cancer in Wisconsin
- Generated and compared different types of machine learning models such as support vector machines, k-means clustering, and spectral clustering

Generative Models for Text
- Trained deep learning model called Long Short-Term Memory to mimic different styles of writing using Keras

LEADERSHIP

President, Korean Economics Student Association at UW-Madison   Jan. 2013-Dec. 2013
- Organized and hosted the Simulated Stock Investing Competition with 40+ participants
- Facilitated and presented weekly meetings in front of 50+ club members for a semester

CERTIFICATIONS

Actuarial exams passed: FM, P, MLC, C, MFE, all VEE certifications and FAP