Khuyen Tran

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EDUCATION

Southern Illinois University Edwardsville (SIUE)	Expected Grad: May 2021
Bachelor of Science in Applied Math with Honors	Cumulative GPA: 4.0 /4.0
Mathematical Tools for Data Science in CIMAT	Spring 2020

- **Related courses:** Probability and Statistics, Linear Algebra, Design of Algorithms, Numerical Optimization and Machine Learning, Data Visualization

SKILLS & EXPERTISE

- **Programming languages**: Python, R, C++
- **Libraries & Frameworks**: Pandas, Tensorflow, Numpy, Scikit-learn, Matplotlib
- **Tools:** SQL, AWS RDS, Spark, Django for web application
- Strong knowledge in Statistics, Machine Learning, Data Analysis, and NLP.

PROJECTS

Scheduling App with Machine Learning and Integer Programming   Jan 2020-Present
- Cooperate with Dr. Andrew Trapp from Worcester Polytechnic Institute (WPI) to develop a scheduling app
- Utilize integer optimization to find the most effective schedule and maximize productivity.
- Tools: integer programming with Pulp-optimization in Python, Gurobi and natural language processing for task classification

Predict Gender and Language Variety in Twitter   March 2020
- Identify author's gender and language variety in Twitter.
- Experiment with 3 different ML models and achieve f1-score of up to .81 for gender prediction and .84 for language variety.
- Tools: NLTK (natural language toolkit) for preprocessing raw texts, scikit-learn (machine learning in Python), BERT (natural language processing), and neural network for model training and prediction.

Scraping, Text Processing, and Analysis Ghibli Movie Database   Jan 2020
- An end-to-end exploratory data analysis: extracting raw data on Ghibli Movie Database and analyzing the data.
- Tools: Beautiful Soup (Python library for web scraping), NLTK for text processing, Pandas and Matplotlib (Python library for visualizing and analyzing the results)

EXPERIENCE

Data Science Intern   March 2020-Present
Arch Talents   St. Louis, MO
- Utilize Django to develop a web application that organizes data efficiently and increases company productivity.
- Come up with data management solutions to costly business problems with Amazon RDS MySQL
- Participate in daily and weekly meetings with manager and client, provided information on the progress.

Research Assistant   Jan 2019-Dec 2019
SIUE Department of Mathematics and Statistics   Edwardsville, IL
- Formulated metaheuristic with Dr.Chew, a method to provide optimal solution with incomplete information within acceptable time. Especially useful for neural network training
- Achieved 10-6 accuracy when tested on multidimensional functions

Data Science Technical Writer   Jan 2020-Present
Towards Data Science
- Authorized more than 40 articles on topics of Natural Language Processing, web scraping, data science tools, and mathematical programming with more than 110k views a month
- Simplified complex mathematical and programming concepts with insights and interactive visualizations.

Math and Business Tutor   Aug 2018- Dec 2019
SIUE Tutoring Resource Center   Edwardsville, IL
- Guided more than 10 students to get from C to A grade in statistics and mathematics courses within 2 months.
- Effectively communicate to those who have little understanding of the subjects with confidence and clarity.

Calculus Enrichment Session Leader (ES Leader)   Aug 2018- Dec 2018
SIUE Department of Mathematics and Statistics   Edwardsville, IL
- Led a class of 60+ students from different learning backgrounds to master calculus knowledge.
- Devised strategic plans with other leaders and professors to deliver complex concepts in comprehensible ways