Xin Zhang

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EDUCATION

M.S. Computer Science – Specialization in Computational Operations Research — Aug 2017 – May 2019
College of William & Mary, Williamsburg, VA — GPA: 3.5
Honors and Awards: Graduate Teaching Assistantship

B.A. Sociology – Minor Mathematics — Aug 2012 – May 2016
Sweet Briar College, Sweet Briar, VA — Mathematics GPA: 3.7; Overall GPA: 3.2
Honors and Awards: Dean's List, Founder's Scholarship, Leadership Award, Service Award
Activities: Paint 'n' Patches Club (Theater Society), Chinese Club (*Treasurer* & *Secretary*)

Continuing Education – Professional Development
Self-learning through several massive open online course platforms (Coursera, DataCamp, edX)
Completing 15 courses in Computer Science and Data Science

WORK EXPERIENCE

Predictive Modeler, Data & Analytics Department
PRA Group, Norfolk, VA — Aug 2019 – Present
- Developing and enhancing predictive scoring models for operational strategies using SQL, R, Python and SAS
- Gathering source data and performing data preparation and data cleaning for modeling and analysis
- Analyzing data with use of statistical analysis, machine learning algorithms, and data mining techniques
- Deploying data pipelines and predictive models in production environments
- Translating analytic findings into business insights and strategy recommendations

Graduate Teaching Assistant, Mathematics & Computer Science Department
College of William & Mary, Williamsburg, VA — Aug 2017 – May 2019

Intern, Office of Administration
Sweet Briar College, Sweet Briar, VA — Sep 2016 – Aug 2017

SKILLS

Operating Systems: Windows, Mac OS, Unix/Linux
Languages: R(caret, data.table, DMwR, dplyr, ggplot2, h2o, iml, recipes, tidyr),
Python(Matplotlib, NumPy, pandas, scikit-learn, Seaborn),
SQL(Oracle/PLSQL, PostgreSQL)
Tools: LaTeX, AMPL, Jupyter Notebook, RMarkdown, Git/GitHub, command line, Oracle Database, SAS Enterprise Miner, Arena/SIMAN, Regular Expressions, Microsoft Excel, Maple, SPSS
Analytic Skills: Data Analysis, Data Mining, Data Visualization, Deep Learning(Neural Networks), Discrete Event Simulation, Linear Programming(CPLEX, Gurobi), Mathematical Statistics, Machine Learning(Classification, Clustering, Regression), Predictive Modeling, Probability, Time Series Analysis(ARIMA, exponential smoothing, GARCH)
Soft Skills: Active Learner, Detail Oriented, Self Motivated, Team Player, Problem Solver

RELATED COURSEWORK

Linear Programming	Discrete Optimization	Probability
Network Location Theory	Network Optimization	Data Mining
Models & Applications in OR	Applied Machine Learning	Mathematical Statistics
Simulation & Modeling in OR	Optimization in Machine Learning	Statistical Analysis of Simulation

ACADEMIC PROJECTS

DrivenData Challenge: Data Mining the Water Table, *Data Mining* (group project) — Spring 2019
- Implemented classification models using random forest, KNN, and logistic regression
- Performed data cleaning/pre-processing and further analysis in R (packages used: caret)
- Collaborated with other team members through GitHub

Redistricting Police Patrol Zones, *Simulation & Modeling in Operations Research* (individual project) — Fall 2018
- Improved the workload min–max ratio between five patrol zones in local county from 1.92 to 1.26
- Simulated local police patrol system in Arena/SIMAN simulation software
- Conducted data analysis in R (packages used: dplyr, ggmap, ggplot2, mapview, sp, rgdal, raster)
- Applied time series and geographic information system package to help analyzing the data

Confidence Region Plotting, *Statistical Analysis of Simulation Models* (group project) — Spring 2018
- Contributed to existing R package `conf` by adding code for four more univariate distributions
- Adapted an existing confidence regions plotting technique and two improvement heuristics
- `conf` package is available at `https://CRAN.R-project.org/package=conf`