Yan Feng

***US Permanent Resident (Green Card holder)***

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**QUALIFICATIONs**

* Skilled in data analytics tools, R, Python, SQL, *etc.*
* Predictive model with machine learning, regression and classification models, linear regression with single or multiple variables, logistic regression, KNN, tree-based models, unsupervised learning, dimension reduction, k-means clustering, *etc*.
* In-depth knowledge in statistics, hypothesis testing, ANOVA, new experimental design, t-test, *etc*.
* Advanced interactive data visualization, ggplot2, matplotlib, seaborn, plotly, leaflet, *etc*.
* Development of data product with R markdown and shiny
* Experience with version control solutions, git and github
* Validating models with training/testing split and cross-validation
* Multi-disciplinary working environment and giving instructions to junior researchers
* Working knowledge in finance

**Education**

* **Data Science Specialization**, Johns Hopkins University 2017
* **Ph. D.** in Chemistry, University of Minnesota 2011
* **B. S.** University of Science and Technology of China 2005

**CERTIFICATION**

* AWS Certified Solutions Architect – Associate by Amazon AWS

**PROJECTS**

* Utilized web scraping techniques to extract word from blogs, news and twitter; used text mining to tokenize the data and developed word frequency report; built an n-gram model to predict the next word when typing; developed a web application with shiny
* Conducted random forest model to predict human manner from data collected from accelerometers, achieving 96% accuracy on the testing set
* Developed a financial model to calculate the rate of return of a rental property with consideration of all situations; visualized yearly cash flow in a web application with shiny
* Compared 16 pesticides statistically to conclude new green pesticides for protection of agriculture

**wORKINGI Experience**

***Research Chemist***

USDA GS-11 2014-present

* Analyzed 16 pesticides statistically to prove the efficacy of new pesticides, resulting in 2 US patents
* Evaluated a natural blend for controlling invasive species and eliminated unnecessary components based on statistical analysis, resulting in a US patent
* Lead in a multi-disciplinary environment and gave instructions to junior researchers

***Post-doc Fellow***

Georgia Institute of Technology, School of Chemical and Biomolecular Engineering 2011-2014

* Selectedpromising industrial catalysts based on prediction model
* Conducted catalyst screening to achieve 100% catalyst recycling with the help of calculation