Yongjin Jiang

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Portfolio: https://yongjinjiang.github.io/portfolio/

Personal Statement

Business-minded Data Scientist with nearly twenty years' experience in coding and modeling in the field of theoretical physics. Successfully published about 30 scientific papers and won an outstanding researcher award. A graduate from the University of Minnesota, *Data Visualization and Analytics* Program. Extensive research experience in quantum modeling and numerical simulation of nano-structured materials. A creative, critical thinker with a strong eagerness for learning and employing advanced skills to maximize scalability and drive feasible results. Proven ability in performing data visualization and analytics using Python, JavaScript, statistical modeling, and more. Expertly equipped with statistical modeling and provide data report with valuable business insights.

Education/Certificates

- Data Visualization and analytics Bootcamp, University of Minnesota *2018.8-2019.2*
  A 24-week intensive program focused on gaining technical programming skills in Excel, VBA, Python, R, JavaScript, SQL Databases, Tableau, Big Data and Machine Learning.
- Deep Learning Specialization, Coursera online course *2018.10-2019.2*
  Learned about Convolutional networks, RNNs, LSTM, Adam, Dropout, BatchNorm, Xavier/He initialization, and more. Worked on case studies from healthcare, autonomous driving, sign language reading, music generation, and natural language processing. Mastered not only the theory, but also how it is applied in industry.
- Ph.D. in Theoretical Physics, Fudan University, Shanghai, China 2002

Skills

- *Databases:* MySQL, MongoDB, SQLite
- *Programming:* Python, JavaScript, Excel/VBA, R, Tableau, MATLAB, Mathematica, Fortran
- *Mathematics and Statistics:* Calculus, Linear Algebra, Complex Functions, Partial Differential Equations, Group Theory, Numerical Optimization, Numerical Linear Algebra, Statistical Mechanics, Green's function, Kernel Methods, Monte Carlo simulation
- *Machine Learning:* Regression, CNN, RNN, TensorFlow
- *Others:* Social data mining, web scraping, git/GitHub, Heroku, Jupyter notebook

Selected Projects

- D3 Journalism *Demo*
  An interactive data visualization for series of feature stories about the health risks facing particular demographics. d3.js is heavily used in this app.
- Global Earthquake Map *Demo*
  A real time global earthquake map (for past 7 days) is shown with a dropdown for layer choice. Leaflet.js and geojson data format is leveraged upon.
- MySQL project
  MySQL queries for a database, a standard schema that can be used for examples in books, tutorials, articles, etc.
- Pandas_HeroesOfPymoli *Demo*
  A typical application of Python pandas to do data analysis. Deployed on binder.org for running Jupyter notebook.
- WebScraping: MissionToMars
  Web scraping for news about Mars: Python packages like requests, BeautifulSoup, splinter.Browser, pymongo, flask are used.

Portfolio

- More about me can be found here.