

Yongjin Jiang

Email: yjjiangphysics@gmail.com
Portfolio: <https://yongjinjiang.github.io/portfolio/>

Mobile Phone: +1(612)-442-4832

Personal Statement

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 & analytics using Python/R, JavaScript, Machine Learning, and more.

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, Statistics, 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 (Top 5), China 2002.7

Important Experiences

- Postdoc Associate & Visiting Scholar, University of Minnesota 2015.1-2017.6
- Professor, Physics department of Zhejiang Normal University, China 2004.9-2014.12

Skills

- *Databases:* MySQL, MongoDB, SQLite
- *Programming:* Python, JavaScript, Excel/VBA, R, Tableau, MATLAB, Mathematica, Fortran
- *Machine Learning:* Linear Regression, knn, decision tree, Random forest, SVM, Convolutional Neural Network (CNN), Recurrent Neural Network (RNN), Scikit-learn, TensorFlow, Keras
- *Others:* Social data mining, git/GitHub, Heroku, Jupyter notebook, google cloud platform

Selected Projects (see my [portfolio](#) for more projects):

1. Data Visualization& Data Analytics (All the following six are personal projects, with key techniques highlighted)

- D3 Journalism 2018 ([link](#)) ([Demo](#))
*An **interactive data visualization** tool is provided for a series of feature stories about the health risks facing particular demographics of the United states. Features for both x and y axis are selectable. **d3.js** is heavily used in this app.*
- Global Earthquake Map 2018 ([link](#)) ([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.*
- Web Scraping: Mission To Mars 2018 ([link](#)) ([Demo](#))
***Web scraping** for real time news about Mars: Python packages like **requests**, **BeautifulSoup**, **selenium**, **pymongo**, **flask** are used. Deployed on **Heroku** (note for demo: refresh the /scrape page for a few times if somehow it stopped working).*

Honors/Awards/Activities

- Award for Distinguished publication during the 2005-2010 period in ZheJiang Province, P.R.China, 2012
- Academic leadership for young and middle-aged scientists in ZheJiang province, P.R.China, 2013
- Referee for *Physical Review Letters*, *Physical Review B* and several other Physics Journals.

Job expectation

Full stack web developer, Researcher or/and Engineer of Machine Learning/Deep Learning