

Zhenqing (ZQ) Li

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— Experiences —

09/2016 - Present **Principal Data Scientist**, Capital One, McLean, VA

- Validating behavior, fraud and recommendation models in card customer acquisition and management at model risk office
- Extensively using AWS cloud based computing for modeling and building data engineering pipeline
- Investigating new tools to provide opinions to 1st line card data scientist team
- Maintained/modernized three legacy SAS based model-monitoring tools
- Contributing to various internal open source projects

06/2012 - 09/2016 **Research Chemist**, Lubrizol, Wickliffe, OH

- Developed a statistical model to predict chemical toxicity, saving registration cost (\$1M)
- Wrote an image processing software to assess hair straightening after shampoo treatment
- Applying Design of Experiment concepts consistently in new product development
- Developing rheology modifier for lubrication and supporting pilot scale-up/manufacturing
- Supervise technicians

— Work Authorization —

Permanent Resident

— Skills —

Core Skills Python (numpy, scipy, matplotlib, pandas), R(data.table, ggplot2), H2O (www.h2o.ai), Spark, SQL, AWS, EMR, Ansible, Terraform

Unix/Linux Experiences Extensively use Linux/Unix system for 10 years

Statistics Statistical data analysis, Design of Experiment (DoE), Six Sigma Green Belt

Language Chinese Mandarin (native), English (fluent)

—— Open Source Projects ——

Smart Underwriter <https://smartunderwriter.herokuapp.com>

I made a stochastic gradient descent trained SVM model, using Fannie Mae's single family housing data from 2000 to 2015. My project models the automated underwriting system (AUS) credit decision. For detail on data acquisition, processing and machine learning, please check the [data acquisition](#) or [training models](#). You can also checkout the [GitHub repo](#).

NYC Bus Track <https://nyc-bus.herokuapp.com>.

Analyze NYC's bus status using both historical and real time data. Source: [Github](#)

Trulia Scrapping Study of Trulia Traffic

Using Python to scrape Trulia housing data in different US states via its API. Analyze and plot those housing data by using R with ggplot2 and ggmaps. Source: [Github](#)

—— Education ——

03/2016 - 05/2016 **Fellow at The DataIncubator Inc.**

2016 - Present **Machine Learning Track** [Neuron Networks and Deep Learning](#); [Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization](#)

2016 - Present **Functional Programming Track** [Functional Programming Principles in Scala](#)

2015 - Present **Data Science Track** by John Hopkins University (Coursera)

[The Data Science's Toolbox](#); [R Programming](#); [Getting and Cleaning Data](#); [Exploratory Data Analysis](#)

2015 - Present **Fundamentals of Computing** by Rice University (Coursera)

[An introduction to interactive programming in Python: Part I](#); [An introduction to interactive programming in Python: Part II](#)

05/2008 - 06/2012 PhD, Materials Science & Engineering

The Ohio State University, Columbus, OH

08/2006 - 05/2008 MS, Materials Science & Engineering

Clemson University, Clemson, SC

09/2002 - 07/2006 BS, Macromolecular Science & Engineering

Fudan University, Shanghai, China

—— Selected Publications ——

Full publication list is at [Google Scholar](#)

2012 **Li Z**, Guo X, Guan J. *An oxygen release system to augment cardiac progenitor cell survival and differentiation under hypoxic condition*. *Biomaterials*. 33(25): 5914-5923

2012 **Li Z**, Guo X, Guan J. *A Thermosensitive Hydrogel Capable of Releasing bFGF for Enhanced Differentiation of Mesenchymal Stem Cell into Cardiomyocyte-like Cells under Ischemic Conditions*. *Biomacromolecules* 13(6): 1956-1964.

2011 **Li Z**, Guan J. *Thermosensitive hydrogels for drug delivery*. *Expert Opin Drug Deliv*. 8(8): 991-1007.

2011 **Li Z**, Guan J. *Hydrogels for cardiac tissue engineering*. *Polymers*. 3(2): 740-761; [doi]