# Zhenqing (ZQ) Li

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	— Experiences ——	

#### 03/2016 - 05/2016 Fellow at DataIncubator

- Extensively use data science tools: Python, Pandas, Numpy/Scipy, Hadoop, Data Visualization, Spark, Flask Web Development
- 4% acceptance rate among all applicants

## 06/2012 - Present 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 ——

Programming R, Python, C, FORTRAN, MatLab/Octave

Unix/Linux Experiences Extensively use Linux/Unix system for 8 years

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

Language Chinese Mandarin (native), English (fluent)

—— 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.

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

- 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
- 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]
- Li Z, Guo X, Matsushita S, Guan J. Differentiation of cardiosphere-derived cells into a mature cardiac lineage using biodegradable poly (N-isopropylacrylamide) hydrogels Biomaterials 32(12): 3220-3232
- 2009 Li Z, Wang F, Roy S, Sen CK, Guan J. *Injectable, highly flexible, and thermosensitive hydrogels capable of delivering superoxide dismutase* Biomacromolecules 10(12): 3306-3316