

# Patrick McCarthy

<http://asteriske.github.io>

[patrick.jmc@gmail.com](mailto:patrick.jmc@gmail.com)

(347) 329-3638

## SKILLS

---

- R, Python Scikit-Learn, Pandas, SAS
- AWS, Spark, git, SVN, Netezza
- Machine Learning, Survey Sampling
- Java, C++, bash (sed, awk, grep)
- Linux, OS X, Windows
- Data visualization in D3.js, Django

## EXPERIENCE

---

### **Data Scientist**, eXelate, Inc. (2013-Present, acquired by The Nielsen Company 2015)

- Designed and built end-to-end modeling pipelines against 1bn+ records for use in secure remote environments
- Built several hundred real-time scoring models from multi-gigabyte sparse-feature datasets, including many where  $p \gg n$
- Implemented high-performance concurrent ETL system Python, EC2 and S3
- Researched novel applications of statistical practice to business problems, including latent class analysis, Bayesian models
- Developed process automation and dashboard applications in Python, R, d3.js

### **Campaign Analysis**, Eric Garcetti for Mayor of Los Angeles (May 2013)

Consultant. Mined donor database to uncover trends, discovered potential repeat donors.

Communicated results, recommendations to non-quantitative staff. <http://goo.gl/SDERNa>

### **LA Sheriff's Office Corruption Investigation**, Witness LA (September 2012)

Consultant. Support for investigative print journalism. Produced an analysis of financial and personnel records to investigate allegations, discovered high likelihood of "pay for play" practices. *Best Database-Driven Journalism award*, LA Press Club. <http://goo.gl/GYvi7R>

### **Quantitative Analyst Intern** (June 2012 – September 2012)

Acumen LLC, Burlingame CA

- Enhanced client relationships by developing a general use JavaScript visualization tool to intuitively display hierarchical datasets <http://goo.gl/iO6BcY>
- Primary research for Medicare Administration /Affordable Care Act contract
- Developed new healthcare policy insights through exploration and analysis of a multi-gigabyte dataset, including extensive use of SAS macros and ODS

### **Technical Specialist** (September 2008 – September 2011)

Information Technology, Boston University Medical Campus, Boston MA

- Managed teams through multiple phases of enterprise infrastructure deployment including research, initial implementation and ongoing maintenance
- Took initiative in streamlining department operations, both in procedure and technology

## EDUCATION

---

### **M.S. Statistics**, June 2013

University of California Los Angeles, Los Angeles CA

Thesis: *A Study on Conditional Likelihood Estimation for Survey Sampling*

### **B.A. Economics and Mathematics**, May 2008

Boston University, Boston MA