

## SUMMARY

Data scientist with skills in exploratory data analysis, graphical analysis, statistics, hypothesis testing and predictive analytics. Flexible and eager to learn new domains and skills. Obtains reliable solutions to real-world problems by combining domain knowledge with analytics and verification of underlying assumptions.

- Predictive modelling / Experimental design and analysis
- Exploratory data analysis / visualization (SAS,R, STATA)
- Technical reports / presentation
- Multivariate experimental design, A/B testing
- Extensive SQL experience developing summary and detailed reports and web applications
- Created web application graphical presentations, data visualizations and GUIs
- Developed, prepared and delivered statistical training materials.
- Developed conducted and published statistically designed experiments.
- Applied SQC processes and designed experiments to a semiconductor assembly line.
- Graphical / dashboard / web reporting
- Data extraction / cleaning / ETL
- Technical curriculum / training
- Quantitative modeling, business analytics

## EMPLOYMENT HISTORY

Data Scientist, **Bridg-it** (EdTech start-up), New York, NY

2015-2016

Responsible for predictive analytics strategy, data architecture and hands-on implementation.

- Created dashboard data visualizations (R, AMCharts and D3.js) including design, SQL, and JavaScript
- Developed strategy for data collection, data warehouse, dashboards, predictive analytics
- Built logical schema for etl and data warehouse (star schemas) and worked with DBA on physical implementation (MySQL)
- Deployed nginx, Shiny, D3 apps in Windows and linux (Centos) environments

Self-study, **MOOC and Short Courses**

2014 - 2015

**Data Science Specialization:** R Programming, Getting and Cleaning Data, Regression Models, Exploratory Data Analysis, Practical Machine Learning, Developing Data Products, Statistical Inference, Reproducible Research , Johns Hopkins University (via Coursera), 2014-2015. Signature track, with distinction.

**SAS Programming – Essentials**, SAS Institute, September 2014.

**Mining Massive Datasets**, Stanford University (via Coursera), October – November, 2014.

- Cluster analysis (supervised and unsupervised): k-means, hierarchical, Jaccard and cosine similarity
- Recommendation engines: content-based, collaborative, dimension reduction with Singular Value Decomposition (SVD) and Principal Components Analysis (PCA)
- Market-basket algorithm, AdWords, pagerank, graph analysis, text analysis

**Applying Data Science Using Apache Hadoop**, Hortonworks University, February, 2015.

- MapReduce, iPython notebook, Hadoop, HDFS, pig, hive, spark

Business Analyst, **Credit Suisse**, New York, NY

2004 - 2014

- **Provided SQL solutions** for complex Control M generated Oracle relational database (RDBMS)
- **Application strategy optimization using analysis of user behavior logs and operations data** using trends, correlation analysis, ROI, information visualization, business analytics, etc.
- **Provided trend analysis for operational data analytics;** designed and developed companywide batch optimization tool (Global Batch Analysis) Data visualization with JavaScript-based VML.
- **Application enhancement data architecture, business analysis and project management** utilizing both SQL Server and Oracle relational databases (rdbms).
- **Requirements gathering, project management and release management** of application enhancements.
- **Support, planned and unplanned maintenance and troubleshooting** of web-based applications.

Internet Specialist, **Hazlet SV, Industrial Sewing Machine Man LLC**, Hazlet NJ 2003 – 2008 (part-time to present)

- **Extensive experience with Access databases** including SQL, forms, reports and data architecture.
- **Designed, developed and hand-coded web user interface and relational database** for e-commerce web site with administration module.
- **Managed transition to commercial ecommerce platform** including strategy, project management, data migration, etc.

Systems Analyst, **GE Capital**, New York, NY 2000 - 2003

- **External customer-facing web application GUI design** and development; focus on effective data visualization and UX. Using HTML / CSS / XSLT.

Statistician, **Universal Instruments**, Binghamton NY 1995 - 1999

- **Developed reliability assessment and verification program** for complex hardware/software based equipment, utilizing nonhomogeneous Poisson process (NHPP) and Weibull models
- **Provided statistical support for verification of placement precision** of integrated circuit chips using traditional inferential statistics and SQC.
- **Developed training materials and taught class on elementary statistics** to operations personnel  
**Wrote company-wide Reliability program manual** documenting reliability verification processes, software release requirements, reporting strategies, etc.
- **Developed reliability assessment program** for industrial equipment, applied survival analysis statistical modeling to both hardware and software failures.

Research Associate, **W.L. Gore & Associates**, Newark, DE 1989 – 1995

- **Conducted sophisticated SAS performance analyses of garments for ultra-clean semiconductor manufacturing;** documented findings in reports both internally and published and presented in industry publications and conferences. (available on request)

Quality Engineer, **AT&T ME**, Allentown, PA 1982 - 1988

- **Applied statistical quality control analytics extensively in semiconductor manufacturing and assembly,** including ANOVA (for designed experiments), statistical process control and process improvement, data quality analytics.

## EDUCATION

**Master of Arts, Economics**, 2014, New York University, New York, NY

- **Relevant Courses:** Advanced Empirical Methods, Econometrics I & II, Special Project
- **Worked extensively with survey data** in Econometrics, Advanced Empirical Methods, and Special Projects classes utilizing various predictive analytics and regression techniques including Instrumental variables, propensity matching methods, regression discontinuity, difference in differences.
- **Experience manipulating and analyzing large data sets** as a part of original research requirements.
- **Produced academic reports** documenting related research, data sources, methodology, results and conclusions.

**Master of Arts, Applied Statistics** (not completed), University of Delaware, Newark, DE

- **Relevant Courses:** Regression Analysis, Probability Theory and Applications, Design and Analysis of Experiments I & II, Mathematical Statistics, Multivariate Methods

**Bachelor of Industrial Engineering** (with Honors), Georgia Institute of Technology, Atlanta, GA

- **Academic focus** on applied statistics and operations research
- **Grader** for Statistical Quality Control class.