**Michael** **Lanier**   
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| **Wisconsin Physician Services**  **05/2016- Present**  **Statistician**  Duties, Accomplishments and Related Skills: Forecasted Medicare appeals, claims, and call center volumes for a MAC contractor of the US Government. Discovered $100,000 inefficiency in the first 60 days. Used R and Python, specifically the h20 package in modeling time series analysis using XGboost, Neural Nets, and Linear Models. Used clustering techniques including K-Means and Autoencoders to screen for fraud and anomalies. Used genetic algorithm and particle swarm optimization to develop solutions to Non-Linear programming problems related to employee salaries. Developed management dashboards in Tableau to present to C Level executives on forecasting predictions related to Medicare appeals. Used Markov Chain Monte Carlo methods and simulation techniques to present recommended staffing numbers to upper management. Acted as legal counsel for overpayment cases related to statistical techniques in sampling audits.  **PucaTrade**  **06/2016 -07/2016**  **Independent Data Science Contractor**  Used the Random Forest algorithm and linear models to algorithmically generate asset prices with more than 90% accuracy for 30 thousand assets across 7 markets. Used statistical procedures, data mining techniques, and feature engineering to filter unreliable data. Communicated pricing models to management and implemented these models into existing MySql servers. Used economic theory to engineer features for the model.  **Bullhorn**  **05/2015- 4/2016**  **Operations Research Analyst**  Reporting, workforce management, predictive analytics, Coldfusion development, modeling, forecasting for call centers across 4 countries in 3 continents. Worked on a team maintaining a MSSQL database and developed dashboards for management. Used Bayesian linear regression in JASP to determine root causes for customer satisfaction. Used MCMC techniques to jointly optimize support ticket and phone queues. Performed ad hoc reports for management. |

**Education**

**Southern Illinois University at Edwardsville** Edwardsville, IL     
MS

**GPA:**3.5    
**Major:**Statistics and Operations Research  
**Relevant Coursework, Licenses and Certifications:**  
R, Bayesian Predictive Analytics, Regression, Simulation, Sampling Methodology, Linear Modeling, General Algebraic Modeling Systems, Response Surface Methods, Markov Chain Monte Carlo methods, random variable generation. Thesis *The Use of Likelihood Inference for Quantifying Statistical Evidence.*

**Southern Illinois University Edwardsville** Edwardsville, IL     
BS   
**GPA:**3.28 of a maximum 4  
**Major:**Mathematics  
**Relevant Coursework, Licenses and Certifications:**  
Graduated as a Meridian Scholar from the Honors programs. Theory of Interest (3 hours), Accounting (6 hours), Economics (6 hours). Differential equations (3 hours), Calculus sequence (10 hours), graduate level statistics (6 hours)

**Skills:**

R, Python, AWS, SAS, Tableau, Power BI, SQL, Arena Simulation, KNIME, CUDA, Mathematica, C++, Java, Azure Machine Learning, SSIS, Hadoop, Coldfusion, HTML, Minitab, Excel

**Accomplishments and Points of Note:**

* Received a full ride scholarship to SIUE and graduated from the Honors Program as a Meridian Scholar
* Inducted into Pi Mu Epsilon, a Mathematics Honor Society
* Authored an R package https://github.com/mlanier/summer
* Authored a blog post on the H20 package https://www.linkedin.com/pulse/my-first-kaggle-challenge-bnp-paribas-cardif-claims-michael-lanier?trk=prof-post

**Online Coursework and Certifications:**

Machine Learning With Big Data (University of California)

NVIDIA Accelerated Computing Developer Program, Python

Managing Big Data with MySQL (Duke)

Hadoop Platform and Application Framework (University of California)

Introduction to Big Data(University of California)

Data Science: Practical Deep Learning in Theano + TensorFlow (Udemy)

Deep Learning: Convolutional Neural Networks in Python (Udemy)

Unsupervised Deep Learning in Python (Udemy)

Unsupervised Machine Learning -Hidden Markov Models (Udemy)

Deep Learning: Recurrent Neural Networks in Python (Udemy)

Tableau 9 for Data Science (Udemy)

Supercharge R with SparkR (Udemy)