

# Mohit Shrestha

Data Driven Problem Solver

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## Education

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May 2019 - May 2021	<b>Master of Science in Business Analytics</b> , GPA : 4.00 <i>Wake Forest University School of Business, Winston-Salem, NC</i>
Aug 2007 - May 2011	<b>Bachelor of Science, Mathematical Economics &amp; Applied Mathematics</b> , GPA: 3.87 <i>Hampden-Sydney College, Hampden Sydney, VA</i>
<i>Relevant Coursework</i>	Prescriptive Analytics; Simulation and Risk Analysis; Data Mining and Machine Learning; Visual Analytics & Influencing; Database Management; Business Modeling; Forecasting; Analytics Software Technology Multivariate Analysis and Experimental Design; Probability & Statistical Modeling; Optimization
<i>Honors and Awards</i>	Patrick Henry Merit Scholarship; Phi Beta Kappa; Wall Street Journal Student Achievement Award; Pi Mu Epsilon; Omicron Delta Kappa; Chi Beta Phi; Omicron Delta Epsilon

## Skills

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Data Management	SQL, SAS, MS Access
Programming/Modeling	R, SAS, SAS Enterprise Miner, Python, Excel, EViews, C++
Data Visualization	Tableau, R, Excel
Business Optimization	Excel (Solver, VBA Macros)
Energy data vendor	Bloomberg, ABB-Ventyx, SNL Energy
Energy Optimization	PLEXOS, IPM
Web Designing	WordPress, Magento (ecommerce)
Languages	English (fluent), Nepali (native), Hindi (intermediate)

## Work experience

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Feb 2021 – Present	<b>Data Science Consultant, DATA ELEVATES, San Diego, CA</b> <ul style="list-style-type: none"><li>Designed and managed databases and data pipelines of the data.org <a href="#">Inclusive Growth and Recovery Challenge</a> Data for Workforce Nurturing (<a href="#">D4WN</a>) project to democratize informal workers' access to data and drive economic growth opportunities for over 55,000 registered informal workers in Mozambique</li><li>Developed machine learning (ML) models for demand prediction and ML pipelines, Tableau-based dashboards and visualizations, including GIS map, and tracked overall project KPIs to build the capacity of partner organizations for data-driven decision-making</li><li>Provided data-driven visual insights in Tableau to the stakeholders to address gaps and pain points in data journeys</li></ul>
May 2021 – Dec 2021	<b>Senior Energy Market Analyst, ENERGY EXEMPLAR, Roseville, CA</b> <ul style="list-style-type: none"><li>Interacted directly with existing and potential clients to build concept models, provide training and technical support, and advise on modeling techniques.</li><li>Served as a Technical Solutions Engineer and collaborated with product development teams and project managers to resolve technical issues and generate product development stories resulting from client cases.</li><li>Identified the needs for PLEXOS within client organizations and prepared proof of concepts for demonstrations.</li></ul>
Jan 2021 – Apr 2021	<b>Data Analyst Intern, DATA ELEVATES, San Diego, CA</b> <ul style="list-style-type: none"><li>Conducted exploratory data analysis of workers to better understand a digital job platform's user base and informal labor trends in Mozambique</li><li>Built interactive dashboards to track project KPIs, and aid in developing effective policies to help empower and elevate informal workers</li></ul>
Sep 2020 – Dec 2020	<b>Graduate Peer Tutor, WAKE FOREST UNIVERSITY, Winston-Salem, NC</b>

- Conducted one-on-one remote tutoring sessions on the fundamentals of coding in SAS and R for Analytics Software Technology course
- Jun 2011 – Sep 2016
- Associate, ENERGY ADVISORY AND SOLUTIONS, ICF, FAIRFAX, VA**
- Managed 50+ client consulting projects ranging from \$75K to over \$2M to support the development of client strategies and track project progress
  - Led modeling efforts to analyze complex data sets using SQL queries, visualization, and analytics tools such as ICF's proprietary linear program electricity model (IPM®)
  - Performed advanced quantitative and economic analysis for major litigation cases and coauthored white papers
- Analyst, ENERGY, ENVIRONMENT & TRANSPORTATION GROUP, ICF, FAIRFAX, VA**
- Maintained database for IPM by collaborating with various teams and analyzing market-related data from regulatory agencies, utilities, and data vendors such as Bloomberg
  - Conducted long-term analyses of US power markets, including mergers and acquisition valuations, long-term pricing forecasts, and electric market trends
  - Built dashboards and Excel-based models to analyze large complex results efficiently

## Certifications and Courses

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DataCamp	Introduction to Tableau, Intermediate SQL, Joining Data in SQL, Introduction to SQL
Coursera	IBM Data Science Professional Certificate: Databases and SQL for Data Science, Python for Data Science, Data Science Methodology, Open Source tools for Data Science

## Publications

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- Sep 2014 *Study on Long-term Electric and Natural Gas Infrastructure Requirements in the Eastern Interconnection*, Association of Regulatory Utility Commissioners (NARUC) and Eastern Interconnection States Planning Council (EISPC)
- Jan 2014 [\*Of Polar Vortexes and PJM Price Spikes\*](#), ICF

## Relevant Academic Research and Data Analytics Projects

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### **Use of Natural Language Processing (NLP) to Extract Hidden Insights from Clinical Notes, Group Research Paper**

- Provided an in-depth look at how NLP is leveraged to improve patient care by easing the burden on physicians while note taking

### **Employee Performance Analysis and Memo Report**

- Built a data model to assist a car retailer transition from a spreadsheet solution to MySQL relational database
- Used SQL to investigate employee performance from the database and presented a memo report identifying the most successful salesman
- Designed Entity-Relationship-Diagram with Data Schema to manage employee performance information

### **Twitter Sentiment Analysis**

- Used R to perform Twitter Sentiment Analysis, generate word cloud, and topic classification
- Wrangled data and used text mining techniques in R to analyze the positive and negative sentiments of tweets

### **North Carolina's Medicare Opioid Prescription Analysis**

- Wrangled large datasets (32,104 physician records, 884,276 prescription records, 113 drug names with opioid) in SAS and used PROC SQL method to combine datasets to create North Carolina's opioid scenario visualization
- Performed Exploratory Data Analysis (EDA) to create data summary visualization

### **Boston Crime Forecast**

- Converted 3 years of daily crime incident data to monthly data and trained Time Series ARIMA model to forecast number of crimes in Boston for the next 3 months

### **Bank Direct Marketing Analysis, UCI Machine Learning Repository**

- Assessed whether a client would subscribe a bank product based on direct marketing information, using logistic regression, and random forest, achieving 80% of prediction accuracy

### **Purchasing Prediction**

- Predicted the likelihood of a grocery store customers buying organic product using random forest simple decision tree and simple logistic regression in both SAS and R

## **Food Truck Forecasting**

- Built a predictive model to optimize the decision-making process for a food truck owner in deciding which location to sell and what price to charge accounting various parameters from weather information, ingredients cost, fuel cost, travel time and historical sales.
- Conducted a thorough analysis to derive significant parameters to determine the regression coefficients to predict the quantity of burgers sold at four cities
- Built an interactive dashboard using PowerBI to visually analyze the food truck's performance