

# • MEGAN SMITH •

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Data Analyst with a solid background in mathematics, data analysis, data visualization, and interpretation. Skilled in presenting complex data to diverse stakeholders, driving organizational performance with data-driven insights and innovative solutions. Experienced in using advanced analytical tools and techniques to drive decision-making and empower over 120 clients per year to meet all KPIs and milestones. Certified in data analysis, with hands-on experience in SQL, Tableau, Python, R, and Excel, and a demonstrated history of success in corporate and educational settings.

## S K I L L S

**Data Analysis:** SQL | Tableau | Python | R | Excel | Domo

**Data Visualization:** Tableau | Python | Domo

**Programming Languages:** SQL | Python | R

**Statistical Analysis & Machine Learning:**

Multivariate Regression | Time Series Analysis | Anomaly Detection

Predictive Modeling | Correlation Analysis

## Certifications:

Domo Professional Services & Domo Technical Certifications

Data Analytics Certification - Data Career Jumpstart

## P R O J E C T S

### SQL: [FINANCIAL DATA](#)

- Leveraged SQL to examine over 1.18 million transactions representing loans and grants issued from the World Bank Group to identify top borrowing countries, interest rate ranges, and investment impacts.
- Conducted financial analysis demonstrating that the number of transactions does not correlate to the total debt, highlighting India, Pakistan, and Bangladesh as the top debtors.
- Analyzed Uganda's \$88 investment in economic recovery and infrastructure development, contributing to a 6.8% economic improvement within the first half of the year.

### TABLEAU: [EDUCATION DATA](#)

- Conducted school performance analysis to evaluate graduation rates and demographic data of 1,800+ schools, distinguishing top and bottom performers based on graduation statistics, economically disadvantaged students, and students with high needs.
- Investigated geographic patterns of educational outcomes using Tableau, mapping graduation rates to school locations and identifying clusters of high and low-performing schools, informing allocation and policy initiatives.
- Orchestrated the development of an interactive Tableau dashboard, presenting actionable insights to an analyst team at Kaplan Inc., proposing strategies to improve student support and enhance academic success.

### P Y T H O N: [MANUFACTURING DATA](#)

- Interpreted manufacturing time series data containing 730,00 samples, investigating anomalies and identifying correlations between critical variables impacting plant performance.
- Applied statistical techniques using Python to identify linear correlations and generated data visualizations confirming the stability of critical variables.
- Developed Python visualizations to investigate fluctuations in material purity during manufacturing, indicating seamless operations and a 10% increase in desired material post-processing.

### R: [HUMAN RESOURCES DATA](#)

- Utilized R programming language in RStudio to examine human resource data for 1,470 employees to investigate HR-related claims, effectively refuting allegations of ageism and income-based layoffs.
- Developed multivariate linear regression models to explore complex relationships between employee attributes, facilitating a deeper understanding of factors influencing monthly income and informing HR strategies, resulting in a 35% increase in predictive power compared to univariate models.
- Examined performance rating correlations, finding strong ties to percent salary hikes ( $r = 0.77$ ) but not to monthly income or training attendance, leading to recommendations for targeted professional development programs.

### EXCEL: [MARKETING ANALYTICS](#)

- Evaluated customer spending patterns and demographic trends using Excel to identify correlations between income levels and expenditure on food delivery services, with findings showing that higher-income customers generate the most revenue.
- Created data visualizations in Excel showing Campaign 6 was the most successful and product purchases by age group indicated wine was the highest revenue-generating product across all age groups.
- Marketing recommendations included targeting higher-income customers, promoting customer retention through series-based promotions, directing wine promotions to younger and older age groups, and continuing to refine successful campaigns.

## W O R K E X P E R I E N C E

### MATHEMATICS EDUCATOR

Rochester Community Schools

08/2010 – Present

- Engineered Excel spreadsheets to track student performance metrics and exam scores, identifying a 5% increase in overall student exam scores.
- Analyzed qualitative and quantitative student scores to determine standards and objectives that needed remediation, resulting in significant curriculum adjustments that upgraded the quality of 200+ instructional materials for cross-functional teams and faculty.
- Documented upfront and ongoing needs assessments for over 80+ targeted learners, including gap analysis, research, and evaluation to ensure 7+ courses matched with curricula and identified opportunities for improvement.

## E D U C A T I O N

Master of Science in Industrial Applied Mathematics | Oakland University

Bachelor of Science in Secondary Mathematics & Biology Education | Rochester Christian University