· M E G A N S M I T H ·

248.410.3649 | megansmithmath@gmail.com | LinkedIn Profile | Portfolio | Clarkston, MI

Data Analyst with a solid background in mathematics, data analysis, and learning development. Proven ability to enhance organizational performance through 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 with a demonstrated history of success in both corporate and educational settings.

SKILLS

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

PROJECTS

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.

PYTHON: 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.

WORK EXPERIENCE

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.

EDUCATION

Master of Science in Industrial Applied Mathematics | *Oakland University*
Bachelor of Science in Secondary Mathematics & Biology Education | *Rochester Christian University*