

# Sarah Kate Schuhler

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Certifications - AWS Certified Cloud Practitioner | AWS Certified AI Practitioner

## Current Role

### **Data Scientist | AI Transformation, AVP @ Fifth Third Bank**

June 2023 - PRESENT, Raleigh NC

Combine deep learning with traditional data science techniques to provide insights and recommendations to stakeholders.

- Ensemble k-means and affinity propagation clustering methodologies in Python to optimize the selection of training phrases for a transformer-powered customer-facing chatbot, decreasing the chatbot's error rate by 58%. Tune classification thresholds to attain a successful classification rate of 94% for a chatbot that receives millions of messages annually.
- Query conversation data using SQL and leverage it to generate synthetic training data using GPT-4o. Run statistical analyses to determine the ideal ratio of real and generated utterances for classification modeling.
- Engineer advanced AI and ML tools in AWS. These custom-built applications serve to streamline (and sometimes fully-automate) existing processes and information retrieval techniques.
- Design experiments and perform A/B testing to compare various AI products for customer outreach.
- Manage and mentor a junior data scientist, fostering skill development and independent project execution. Additionally, serve as team leader in the local office, overseeing the work and development of nine teammates.

## PROJECTS

### **Master's Practicum @ GoDaddy Inc.**

Served as Technical Lead for an 8-month team project focused on building predictive models to identify key indicators of customer success, driving data-driven strategies for GoDaddy's product teams.

- Developed an interpretable binary logistic regression model in Python using clickstream and account activity data to determine the key performance indicators (KPIs) of customer success.
- Utilized advanced programming and data manipulation techniques to clean messy web, account, and product datasets and applied advanced feature engineering techniques to enhance model interpretability.
- Designed and deployed a Tableau dashboard visualizing KPIs, fueling actionable recommendations for GoDaddy's product and marketing teams.

## EDUCATION

### **M.S. in Analytics**

May 2023 - Institute for Advanced Analytics, NC State University, Raleigh NC

### **B.S. in Statistics & Analytics, B.A. in Political Science, Minor in Data Science**

May 2022 - University of North Carolina at Chapel Hill, Chapel Hill NC