

Bryce E. Bowles

Richmond, Virginia 23230
bowlesb94@gmail.com

Sample Work
bryce-bowles.github.io

804-551-0281
www.linkedin.com/in/bryce-bowles

Summary

Highly skilled data science professional with 6 years of experience. Expertise in building and implementing data-driven systems and predictive models to solve problems, optimize processes, and drive data-based decisions.

Education

Masters of Decision Analytics (M.D.A.), GPA: 4.0

December 2021

Virginia Commonwealth University, Richmond, VA

- Machine Learning, Statistical Analysis, Optimization, Predictive Modeling, Decision and Risk Analytics
- Phi Kappa Phi Honor Society (ΦΚΦ) member ([Certificate Link](#))

B.S. in Business Administration (B.S.B.A), Management

May 2017

East Carolina University, Greenville, NC

Skills

- Machine Learning Concepts
- Statistical Analysis & Modeling
- Exploratory Data Analysis
- Predictive & Optimization Modeling
- Data Preprocessing
- Model Validation
- Decision and Risk Analysis
- Data Visualization

Tools

- R (caret, dplyr, ggplot2, etc.)
- Python (Pandas, Scikit Learn etc.)
- SQL, SAP Crystal, KNIME
- MS Power BI, Tableau, R Shiny

Work Experience

Data Science Specialist

July 2022 - Present

NewMarket Corporation

Richmond, VA

- Develop predictive modeling applications and business intelligence (BI) reporting using statistical and machine learning (ML) methods. Manage full project scope from data collection data to model deployment.
- Demonstrate effective communication and teamwork by coordinating with cross-functional teams to gather data, understand business requirements, and present insights from predictive models.

Senior Automated Systems Analyst

February 2022 – July 2022

Virginia State Corporation Commission (SCC)

Richmond, VA

- Lead multiple projects involving information systems and analytical tasks.
- Conduct descriptive, predictive, and prescriptive analyses to solve business problems.
- Implemented emailing API system to save the Bureau over \$300K and hundreds of work hours per year.

Automated Systems Analyst (SCC)

June 2018 - February 2022

- Administer new system implementation and lead critical projects.
- Conducted BI dashboard analysis for key projects, resulting in improved the security of over 360K insurance agents' exam and fingerprint process with the goal of protecting the consumer across the insurance industry.

Associate Automated Systems Analyst (SCC)

June 2017 - June 2018

- Supported computer-based systems and system-related projects within the Bureau of Insurance.

Professional Experience (Sample Work - bryce-bowles.github.io)

NewMarket Corporation Data Science Mentor

May – August 2023

- Trained and mentored a Data Science Intern, contributing to a machine learning predictive regression model explaining potential impact on the formulation of driveline fluids for Afton Chemical's R&D.

- Provided guidance through the data science lifecycle: data collection, preprocessing, model development, and deployment.
- Oversaw the intern's progress, ensuring successful completion of assigned tasks and projects while fostering their professional growth and technical skills.
- Facilitated regular discussions, code reviews, and knowledge-sharing sessions to enhance the intern's understanding of data science methodologies and practices.
- Demonstrated effective communication and teamwork by coordinating with cross-functional teams to gather data, understand business requirements, and present insights from the predictive model.
- Successfully integrated the intern's contributions into the larger project, leading to the model's deployment and its potential impact on company operations.

Project Name: Oxidation Characteristics of Inhibited Mineral Oils

- Developed a quantile regression forest predictive model, including 80% prediction intervals, for Afton's R&D CTS section. Trained and deployed a final model into a robust production RShiny application, enabling end users/formulators to predict outcomes and assess formula accuracy and precision. Validated the D943 Oxidation lifetime (ASTM D943) model under multiple scenarios, comparing with Gaussian Process Models, Principal Component Regression, and lasso regression.

Project Name: FZG A10/16.6R/90 Scuffing Model

- Developed a precise and accurate Random Forest predictive model to predict FZG A10/16.6R/90 Scuffing Failure Load Stage. Achieved a 26.22% increase in prediction accuracy above the No Information Rate (NIR) and improved precision (RMSE) by 0.53. Deployed the model to NewMarket's Formulator Tool Kit, enhancing product development for the "Driveline" business unit.

Awards, Certifications and Extracurricular Activities

Volunteer: NewMarket United Way Committee

May 2023-Present

- Data Engaged as a proactive member of NewMarket's United Way Committee, contributing to the organization's philanthropic efforts. Collaboratively assisted in the planning and execution of the United Way day, leveraging skills in advertising, event decoration, and strategic coordination. Actively participated in committee meetings, demonstrating commitment to promoting donations and fostering community support for the United Way organization.

SCC Information Technology Committee Working Groups, Elected member of

May 2019-Present

- Data Analytics – Work as a team to improve analytics systems within the BOI
- Communication – Assist, produce and write articles for the technology newsletters

Data Camp Certifications

- AWS Cloud Concepts
- Data Scientist Professional Certification
 - Introduction to Python, R & SQL
 - Intermediate Python

March 2022

December 2021-Present

The Honor Society of Phi Kappa Phi (ΦΚΦ)

VCU - Richmond, VA

Member

November 2021-Present

- Elected to be a member of the nation's oldest, most selective, and most prestigious all-discipline honor society. The extremely high election standards consist of class standing, GPA and good character. Membership is by invitation only to VCU's top 10 percent of graduate students. ([Certificate Link](#))