

Bryce E. Bowles

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Sample Work
[bryce-bowles.github.io](https://github.com/bryce-bowles)

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Summary

Analyst Professional with 5 years' experience. I build and implement systems and models with data that solve problems, drive decision making and optimize processes using descriptive, predictive and prescriptive analysis.

Education

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

December 2021

Virginia Commonwealth University, Richmond, VA

- Areas: Machine Learning, Optimization, Statistical Analysis, Predictive Modeling, Decision and Risk Analytics
- Elected into Phi Kappa Phi Honor Society ($\Phi\K\Phi$) (*extremely high election standards*)

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

May 2017

East Carolina University, Greenville, NC

Skills

Tools

- | | | |
|--------------------------------------|----------------------------------|--------------------------------------|
| • Machine Learning Concepts | • Relational DB Management | • R (Dplyr, tidyr, Ggplot2, etc.) |
| • Decision and Risk Analysis | • Statistical Analysis (t-tests) | • Python (Pandas, Scikit Learn etc.) |
| • Predictive & Optimization Modeling | • Classification & Clustering | • SQL, SAP Crystal, KNIME |
| • Project Management | • Data Visualization | • R Shiny, Tableau, MS Power BI |

Work Experience

Data Science Specialist

July 2022 - Present

NewMarket Corporation

Richmond, VA

Data Science Specialist with the Data Operations: Data Delivery and Analytics team to help further improve the team's ability to deliver reliable and actionable data to the business.

- Support the development of predictive modeling applications and business intelligence reporting using statistical/machine learning (ML) methods. Full project scope of data engineering, preprocessing, modeling, validation, build R Shiny applications.

Senior Automated Systems Analyst

February 2022 - Present

Virginia State Corporation Commission (SCC)

Richmond, VA

Build, implement, maintain and support analytics models and information systems that automate work tasks for the Virginia Bureau of Insurance (BOI) in support of insurance regulation.

- Lead multiple projects involving important information systems and analytical projects: Understand business needs, create requirements, identify appropriate data and analyses, create dashboards, present results to key stakeholders and leadership, maintain and provide advanced technical assistance.
- Collect data (structured and unstructured), preprocess, visualize and conduct descriptive, predictive and prescriptive analyses using a variety of tools to solve problems and enhance processes and decisions.
- 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

Serve as a Business Systems Analyst Liaison between the Bureau of Insurance (BOI) and Information Technology Division, assisting Automated Systems' Chief and Manager.

- Administer new system implementation: Facilitate software developers and line of business throughout each project application development cycle such as collect requirements, vendor research/system design, configuration, implementation, quality assurance testing, managing security role access etc.

- Lead analyst for a section's largest project in over 30 years ([SB 1222](#)) improving security of over 360K insurance agents' exam and fingerprint process with the goal of protecting the consumer. Built and presented dashboard analysis to stakeholders. Analysis was used to select the vendor and I conducted full implementation.

Associate Automated Systems Analyst (SCC)

June 2017 - June 2018

Support all computer-based systems and system related projects / processes utilized within the Bureau of Insurance.

- Work and collaborate as part of a multidisciplinary analyst team to administer, troubleshoot and improve numerous annual & quarterly system related projects and processes.

Relevant Projects (Sample Work - [bryce-bowles.github.io](#))

Predictive Modeling, Clustering, Classification and Optimization - Lending Club Loan Analysis **December 2020**

- Applied theoretical math and modeling knowledge to develop a full analytics workflow on real data accurately predicting, classifying, clustering and optimizing. Wrote high performing code (*R & RStudio*) to perform data preprocessing, visualization, cluster analysis, predictive modeling, and learning-enabled optimization for an optimal expected return. Developed full analytics workflow to 1. cluster and evaluate Principal Component Analyses of borrowers 2. Accurately predict loan status and 3. optimize loan portfolio.

Classification and Predictive Modeling Analysis – Alchemy Insurance

November 2020

- Built, trained, validated, and tuned (for prescriptive measures) four classification models (classification trees, logistic regression, random forests, and support vector machines) to accurately predict insurance broker performance on gross written premium. Evaluated, visualized, and described five groups of brokers using principal component analysis.

Optimization Modeling - Federal Reserve Bank of Richmond (FRB)

May 2020

- Applied relevant theoretical math knowledge to a real optimization problem using real data. The model was selected to be presented to the client from among over 25 submissions. I worked collaboratively with the FRB IT Vice President to collect data, consult requirements and clearly present report. Built high performing (*Python, Pyomo and GLPK*) network optimization model to simulate reorganization of 1700 employee workspaces across 17 floors, while allocating for changing project teams and requirements.

Awards and Certifications

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](#))

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