

# 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 4.5 years' experience. I build and implement systems and models that solve problems, drive strategic decisions and optimize business 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 ( $\Phi\Kappa\Phi$ ) (*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  | • Predictive Modeling            | • Python (Pandas, Scikit Learn etc.) |
| • Decision and Risk Analysis | • Statistical Analysis (t-tests) | • R (Dplyr, tidyr, Ggplot2, etc.)    |
| • Optimization               | • Classification & Clustering    | • SQL, SAP Crystal, KNIME            |
| • Project Management         | • Data Visualization             | • Snowflake, Tableau, MS Power BI    |

## Work Experience

**Senior Automated Systems Analyst**

**February 2022 - Present**

Virginia State Corporation Commission (SCC)

Richmond, VA

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

- I perform data extraction (from large, complex databases), preprocessing, visualization, descriptive statistics, prediction and prescription analyses using a variety of tools to solve problems and enhance processes.
- Lead multiple projects involving implementing analytics systems, creating requirements, UAT and processes improvements for several complex information systems while providing advanced technical assistance.

**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, security role access etc.
- Lead analyst for the largest Agent Licensing project in over 30 years ([SB 1222](#)) improving the security of over 360K agents' exam and fingerprint process. Built and presented a MS Power BI ArcGIS gap analysis dashboard to stakeholders. The results determined the fingerprint vendor selection. I then implemented all physical, technical, and administrative processes including security safeguards, meeting the Virginia State Police, FBI and system developer/vendor requirements.
- Implemented emailing system to save the Bureau over \$300K and hundreds of work hours per year

**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 with the business.

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

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### *Classification and Predictive Modeling Analysis – Alchemy Insurance*

**December 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 (FRB)*

**May 2020**

- 1<sup>st</sup> place of 30 in model competition. Applied relevant theoretical math knowledge to a real optimization problem using real data. I worked collaboratively with the FRB of Richmond IT Vice President to collect data, consult and clearly present the 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.

### *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.

## Awards and Achievements

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### **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
  - Intermediate Python ([Certificate Link](#))
  - Introduction to Python ([Certificate Link](#))
  - Introduction to R ([Certificate Link](#))

*March 2022*

*December 2021-Present*