

Bryce Bowles, MDA

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PROFESSIONAL SUMMARY

Analyst Professional with 4 years' analyst experience in various data and technical roles. Aspiring Data Scientist or Machine Learning Engineer. Captivated in descriptive, predictive and prescriptive analyses that enhance and optimize business processes with data driven decision making. Proficient in gathering, wrangling, modeling, visualizing, classifying and optimizing data using R, Python Jupyter Notebooks, SQL/PostgreSQL, Tableau, MS Power BI, StatTools, PrecisionTree etc. Persistent curiosity, continuous desire to solve problems and excellent communication skills with the ability to build lasting relationships.

EDUCATION

Virginia Commonwealth University

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

Richmond, VA

January 2019 - December 2021

Relevant Courses Include: Advanced Decision Analytics, Statistical Analysis and Modeling, Decision and Risk Analytics, Forecasting Methods, Business Data Analytics, Data Centric Reengineering, Business Policy and Strategy, Analysis and Design of Database Systems, Business Intelligence etc.

East Carolina University

Bachelor of Science in Business Administration (B.S.B.A), Management

Greenville, NC

August 2013-May 2017

RELEVANT SKILLS

- Machine Learning Concepts
- Data Preprocessing
- Database System Design
- Risk Analysis
- Statistics (t-tests)
- Project Management
- Optimization
- Classification
- Data Visualization

RELEVANT PROJECTS (View [GitHub](#) profile for full list)

Alchemy Classification and Predictive Modeling Analysis (SCMA 648)

Fall 2020

- Performed segmentation analysis and predictive modeling on insurance broker performance to conclude a random forest model (highest AUC of 73%) predicted whether 2020 Gross Written Premium will increase or decrease from 2019 with a misclassification rate of 35%. Four classification models (classification trees, logistic regression, random forests, and support vector machines) were built, validated, and then tuned for prescriptive measures to analyze broker performance. Explored, visualized, and described five groups of brokers using principal component analysis.

Federal Reserve Bank Optimization Model (SCMA 645)

Spring 2020

- Won Optimization model class competition issued by Dr. Brooks (M.D.A. department chair and professor). Proposed Python, Pyomo and GLPK network optimization model approach with binary variables and logical constraints to simulate reorganization of 1700 workspaces across 17 floors, while allocating for changing project teams and requirements. Provided report to IT Vice President, Christine Holzem at the Federal Reserve Bank of Richmond.

Lending Club Loan Analysis (SCMA 648)

Fall 2020

- Performed full analytics workflow to predict loan status and optimize loan portfolio using R: Data preprocessing, visualization, cluster analysis, predictive modeling, and learning-enabled optimization. Explained all data preprocessing (omit missing values, aggregate, log transformation, normalize and visualize etc.). Performed and evaluated 7 k-means clusters and 2 PCAs of borrowers to identify characteristics of each cluster. Classified via logistic regression and classification trees. Evaluated methods with A/B testing / partitioning data, fitting models, confusion matrix, misclassification rate, plotting ROC Curves and AUC. Advised variables important for predicting outcome. Tested other classification methods such as fitting a random forest model, support vector machine and neural network. I then optimized the Lending Club portfolio for my recommendation of an optimal expected return.

WORK EXPERIENCE

Virginia State Corporation Commission (SCC)

Richmond, VA

Senior Automated Systems Analyst

February 2022-Present

Serve as data analyst specialist responsible for automation and information systems work for the Bureau of Insurance (BOI) in support of insurance regulation

- Specialist for advanced data extraction and analysis via SQL, MS Access, Excel, Power BI and SAP Crystal to gather and organize large and complex data sets
- Lead multiple projects involving analytics, new system vendor implementation for several complex information systems and provide advanced technical assistance

Insurance Market Examiner (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

- Project Analyst Lead for the largest agent licensing project (fingerprinting implementation) the BOI has undertaken in over 30 years. Implemented all physical, technical, and administrative security safeguards to meet the requirements of the Virginia State Police, FBI and the system developer/vendor. Presented MS Power BI dashboard, Excel and PowerPoint to Agent Licensing section to show analytics on demographic report of fingerprint vendor research.
- 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 roles etc.

Associate Insurance Market Examiner (SCC)

June 2017-June 2018

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

- Administer, troubleshoot and improve numerous annual & quarterly system related projects and processes with BOI Staff. Create and implement timelines, train employees, streamline workflows, policies, and procedures.
- Provide helpdesk support for BOI Staff (200+ employees): Maintain expert knowledge of all computer applications / equipment, security access, SharePoint updates, website changes, etc.

HONORS / CERTIFICATIONS

The Honor Society of Phi Kappa Phi (ΦΚΦ)

Richmond, VA

Member

November 2021

- The Honor Society of Phi Kappa Phi, the nation's oldest, most selective, and most prestigious all-discipline honor society. Standards for election to Phi Kappa Phi are extremely high. Membership is by invitation only to VCU's top 7.5 percent of second term juniors and the top 10 percent of seniors and graduate students. Virginia Commonwealth University chapter member. ([Certificate Link](#))

Data Camp

(Online)

Data Scientist Professional Certification (in progress)

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

January 2022

December 2021

February 2021