Patricia Marie Barrier | barrier.patriciamarie@gmail.com | (704) 796-1825

Summary / Professional Vita

I am a data scientist and statistician. I understand how to maintain data integrity while leveraging data for data-driven decision making. I engage different programming languages and analytical tools in order to capture and understand data via visualizations and summary statistics/metrics. I use best data wrangling and cleaning processes, am competent in steering meaningful descriptive, predictive, and prescriptive data solutions, and I enjoy using data to tell stories in order to motivate impactful decisions.

Professional Experience

Sr. Data Scientist

Charter Communications | October 2021-Current

- Responsible for designing, building and implementing analytic methods for the Customer Operations L&D team and internal stakeholders
- Effective identification of inefficient and non-value-added processes in the production environment, resulting in improvements to Business Impact/Call Center Metrics, Productivity/SLAs, and Internal L&D (capacity, time tracking, and budget) activities
- Work across the L&D team to facilitate the collection, reporting, and monitoring of key metrics to drive both internal and external activities, and define solutions that drive lasting change to achieve business impact
- Continual evaluation of the Agile Learning Experience Process (ALEP) in order to provide the L&D team with recommendations and plans for continuous process improvement
- Perform project management duties in order to support analytic initiatives and the implementation of new methods
- Lead Analyst for conversion from Podio to Atlassian Jira for operational intake and reporting, included reporting needs analysis, development of 70+ custom dashboards, implementation training and support
- Regularly leverage skills in Statistics and Data Science, paired with use of Excel, Tableau, and SQL, in order to steer data-driven decision making; promoting best practices in capturing and cleaning data, maintaining data integrity during data handling, and guiding teams towards impactful reporting and story-telling

DSBA Studies & Graduate Assistant

University North Carolina Charlotte | August 2018-December 2021

- Data Science and Business Analytics student Graduate Assistant opportunity
- Performed data preparation and analysis on healthcare data, insurance claim data, sales data, and consumer data sets, including cleaning and wrangling
- Used modeling techniques to describe data and make predictions
- Designed computer interface to manage data; utilized cloud computing for data analysis Experience applying Tableau, PowerBI, R, SAS, SQL, Excel
- Imported data into Tableau and created live, 3 dimensional layered, interactive graphs
- Obtained appropriate permissions for use of anonymized healthcare data sets
- Developed a GitHub portfolio from analysis results of project data, analyses include machine learning with decision trees, random forest, text mining, logistic regression, AROC, model testing/training in R, and forecasting
- Developed statistics content for a prerequisite self-taught student readiness course which readied data science professionals interested in advancing their professional development

Professor Statistics and Business Math with Calculus

Appalachian State University | August 2017-December 2021

- Helped develop curriculum mapping for math literacy and published literature on applied learning for nonmathematical minds
- Developed online courses covering Statistics
- Taught both community college and university student populations; established and maintained mentor

- relationships with students of all ages and socioeconomic backgrounds
- Performed outreach to transfer students to engage them with the student body and other faculty and encourage student retention
- Maintained social media presence on Facebook on behalf of the Mathematics department
- Taught Excel applications for advanced statistical analysis of data

Faculty Statistics and Pre-Calculus

Rowan-Cabarrus Community College | August 2011-May 2017

- Performed a customer -facing role, serving student needs and encouraging retention
- Managed course development, implementation, assessment, monitoring, and quality standards
- Provided mentorship to junior instructors in curriculum development and management of student body
- Advised students on how to navigate their college career and provided insight into further career development
- Participated in conflict management, best practices, and legal framework training related to the development of the student body
- In collaboration with educators around the state, redeveloped state standards for college math courses in North Carolina

Education

- MA Mathematics, Appalachian State University, 2006
- MS Data Science and Business Analytics, University of North Carolina Charlotte, Pending 2024
- Graduate Certificate, Data Science and Business Analytics, University of North Carolina Charlotte, 2021
- BS Mathematics with minor in Computer Science, Appalachian State University, 2004

Skills and Technology

Atlassian Jira, Atlassian Confluence, database management (DBA), data integrity, SQL, MS SQL, MySQL, SQLite, SAS, Microsoft Office, Microsoft Access, Microsoft Visual Studio, Google Workspace, Viseo, Course Management Systems (CMS) (ex. Blackboard, Moodle, Canvas), Camtasia Studio, Maple, Minitab (Statistics Software), website development (HTML, CSS, and Dreamweaver), Techsmith Camtasia Studio, public speaking, published co-author, Tableau, PowerBI, SAL, MAL, R, C++, decision trees, random forest, text mining, logistic regression, AROC, model testing/training, predictive modeling, forecasting