



BUSINESS SCIENCE
ROI-DRIVEN DATA SCIENCE

DATA SCIENCE WORKSHOP PROPOSAL

FOR S&P Global



S&P Global Custom R Workshop

About Business Science

Business Science provides premium data science education in business & finance. We specialize in custom workshops and training designed specifically to address your needs. We help your team get to the next level!

Why Us?

- We know R education. Business Science University and individualized training sessions have led to countless success stories with R.
- We know Finance. Our *tidyquant* package is used by most major financial organizations that use R.
- We are results oriented. We define objectives with the client, we build trainings to meet those objectives, we execute to exceed the objectives, and we leave the client with a team fully trained and excited to tackle problems with R.





Workshop Overview

The objective of the workshop is to empower a group of financial data scientists to experience machine learning and shiny web app development using the R programming language. At the conclusion of the training, the students will be familiar with key concepts (tidyverse, machine learning, and Shiny) and excited about using R to solve current and future challenges. This proposal outlines the scope to meet S&P Global's objectives.

Workshop Scope

Day 1 - Topics (4 - 5 hours)	Goals
<ul style="list-style-type: none"> 15 minutes - Importing Data 1 hour - Working with data (dplyr) 1 hour - Visualizing data (ggplot2) and EDA 1 hour - Traditional Modeling 1 hour - Machine Learning (RF & GBM) 	<p>Efficient Learning with tidyverse - Focus on tools like dplyr and ggplot2 to learn R faster and more efficiently.</p> <p>A relatable problem - Context is important for an impactful workshop. The closer we get to the data or problem dealt with day-to-day, the better. We'll use data and analysis related to a Risk of Default model (Merton's Model).</p> <p>Machine Learning - Introduce staples including Random Forest and Gradient Boosted Machines. Compare performance to traditional modeling.</p>

Day 2 - Topics (4 - 5 hours)	Goals
<ul style="list-style-type: none"> 30 minutes - Recap Day 1 1 hour - Modeling (H2O or equivalent) 2 hours - Dashboards (Shiny) & Interactive Plots (plotly) 1 hour - Deep Learning 	<p>Power of R + Shiny - Shiny flexdashboard to make a shiny app.</p> <p>Machine Learning - Tie in an advanced tool like H2O to expose the machine learning capabilities of R.</p> <p>Deep Learning - Overview Keras in R.</p>



Workshop Price

Item	Price
Custom Workshop including: <ul style="list-style-type: none">• Develop training materials (2 weeks)• Travel costs• 2-Day Presentation	\$11,995

Business Science Custom Workshops

Building your skills and getting results

