Things to Accomplish by the End of June 2019

**R Fundamentals**

Course Creation at DataCamp

Introduction to Machine Learning

Supervised Learning in R: Classification

Cluster Analysis in R

Machine Learning Toolbox

Unsupervised Learning in R

Dimensionality Reduction in R

**Teaching Gigs**

Create DataCamp course

Research course for NCE

**Portfolio Management**

Develop portfolio management algorithm - storyboard

Test portfolio management algorithm

Pitch portfolio management algorithm

**Machine Learning – DataCamp Syllabus**

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| Course | Hours | Experience | Status |
| Introduction to Machine Learning  What is Machine Learning  Performance Measures  Classification  Regression  Clustering | 6 | 6,500 | June 2019 |
| Supervised Learning in R: Classification  k-Nearest Neighbors (kNN)  Naïve Bayes  Logistic Regression  Classification Trees | 4 | 3,950 | June 2019 |
| Cluster Analysis in R  Calculating Distance Between Observations  Hierarchical Clustering  K-Means Clustering  Case Study: National Occupational Mean Wage | 4 | 3,800 | June 2019 |
| Topic Modeling in R | 4 | 3,950 |  |
| Machine Learning Toolbox  Regression Models: Fitting Them and Evaluating Their Performance  Classification Models: Fitting Them and Evaluating Their Performance  Tuning Model Parameters to Improve Performance  Preprocessing Your Data  Selecting Models: A Case Study in Churn Prediction | 4 | 6,200 | June 2019 |
| Unsupervised Learning in R  Unsupervised Learning in R  Hierarchical Clustering  Dimensionality Reduction with PCA  Putting It All Together with a Case Study | 4 | 3,600 | June 2019 |
| Machine Learning with Tree-Based Models in R | 4 | 4,450 |  |
| Supervised Learning in R: Regression | 4 | 5,300 |  |
| Fraud Detection in R | 4 | 3,900 |  |
| Dimensionality Reduction in R  Principal Component Analysis (PCA)  Advanced PCA & Non-Negative Matrix Factorization (NNMF)  Exploratory Factor Analysis (EFA)  Advanced EFA | 4 | 3,450 | June 2019 |
| Feature Engineering in R | 4 | 3,500 |  |
| Support Vector Machines in R | 4 | 3,950 |  |
| Modeling with Data in the Tidyverse | 4 | 3,900 |  |
| Hyperparameter Tuning in R | 4 | 3,500 |  |
| Machine Learning in the Tidyverse | 5 | 4,300 |  |
| Supervised Learning in R: Case Studies | 4 | 4,400 |  |
| Advanced Dimensionality Reduction in R | 4 | 4,300 |  |

**Other – DataCamp Syllabus**

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| Course | Hours | Experience | Status |
| Course Creation at DataCamp  Our Process  Tools We Use  What Makes a Great Course?  Start Developing!  Course Launch and Beyond! | 3 | 4,050 | June 2019 |