

Enterprise Machine Learning

PREDICTIVE MODELING, BIG DATA IN THE CLOUD, STATISTICS, MACHINE LEARNING, DEEP LEARNING
/ NEURAL NETWORKS, SCALING MODELS AT ENTERPRISE SCALE WITH SPARK IN THE CLOUD

A six weekend hands on program for a working professional with programming skills to learn tools and techniques to solve real-world problems in public open data and private industry specific domains in the cloud.

BENEFITS

- Learn to Acquire, clean, and parse enterprise scale data sets using Python.
- Gain knowledge on choosing the appropriate modeling technique to apply to your data
- Apply Statistics and Deep Learning concepts to create and validate predictions about your data at Enterprise Scale.
- Communicate your results to an appropriate audience with compelling and interactive visualizations
- Enable enterprises migrate machine learning models into Cloud

Duration / Cost

6 weeks/ \$3,500



PROGRAM OVERVIEW

The 6-week intermediate level hands on course brings together the interdisciplinary fields of data science and machine learning, which is at the intersection of computer science, statistics, and business. You will begin with using various techniques and tools to help you acquire, clean, parse, and filter your data.

A significant portion of the course will be a hands-on approach to the fundamental modeling techniques based on Statistics, Machine Learning and Neural Networks/Deep Learning algorithms that enable you to build robust predictive models about real-world data and test their validity. You will also gain practice communicating your results and insights about how to build systems that are more intelligent using the data that you have gathered.

Hands on exercises on building diverse models including pricing, risk, recommenders, image and text classification gives clear comprehension of selecting the right strategy given the business need..

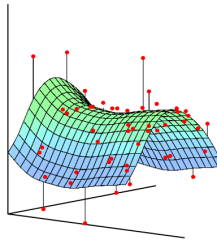
As Machine Learning practices in enterprises increasingly migrate to the Cloud, this course brings the latest of Cloud innovations from companies including Microsoft(Azure), AWS, GCP. Get hands as well as additional training material to prepare for Machine Learning certifications provided by Cloud providers.

Capstone project helps crystalize concepts by building a Data Product that you can show case on github to prospective employers or senior leadership within your own organization.

PROGRAM OVERVIEW

ACCESS TO TOOLS & RESOURCES

TOPIC LIST



SCHEDULE

Two 5-hour sessions on Saturday and Sunday.

WEEK 0 (Pre-requisites: Self Paced): DATA SCIENCE FOUNDATIONS – STATISTICS, PYTHON AND SQL; EXPLORATORY DATA ANALYSIS

Build on Descriptive Statistics, Probability Theory, and explore distributions using python and enterprise visualization tools (E.g.: Tableau/Power BI).

WEEK 1: MACHINE LEARNING, BIAS-VARIANCE AND MODEL EVALUATION

Model Selection, Evaluation and Diagnostics

WEEK 2: REGRESSION AND CLASSIFICATION

Building Regression and Classification models using Statistical and Neural Network techniques. You will learn Model Evaluation and Model Interpretation techniques to help decide whether to use Statistical approach Vs Neural Networks.

WEEK 3: NATURAL LANGUAGE PROCESSING

Extract features from text (convert text into numbers & vectors) and build Sentiment Analysis using Naïve Bayes Classifiers and more advanced Neural Network techniques including Long Short-term Memory.

WEEK 4: DECISION TREES AND ENSEMBLES, CLUSTERING

Supervised Learning beyond classical models and Unsupervised learning with K-means

WEEK 5,6: BIG DATA & CLOUD CERTIFICATION PREPARATION

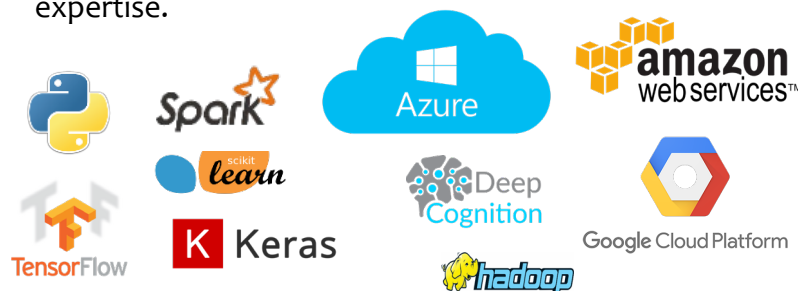
Scaling data analysis with large datasets using Spark ML, Hadoop ecosystem in the Cloud (E.g.: Azure/AWS)

WHO CAN BENEFIT FROM THIS PROGRAM

- The Software Engineer who understands that machine learning algorithms are becoming mainstay for developing new fraud detection and collaborative filtering based applications.
- The Technology/Enterprise/Big Data Architect who understands the richness of information available but has not applied the toolset for Data Science, feature engineering and visually to communicate the data product possibilities to the stakeholders.
- The Marketing Analyst who has experience in Survey, Digital Marketing and Competitive Intelligence and desires to transition into a Data Scientist role and scale the methods on Big Data.
- The Operations engineer who knows that the daily web traffic and web data has rich information to predict the likelihood of issues for proactive management

DATA SCIENTIST CERTIFICATION

Upon completion of the course, participants are encouraged take the relevant Cloud certifications with the resources provided in the course. Certification is a great differentiator; it helps establish you as a leader in the field, providing employers and customers with tangible evidence of your skills and expertise.



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