FDP Charter
The World’s Leading Designation for Finance Professionals in a Data-Driven Industry

Mehrzad Mahdavi, Executive Director, FDPI
Hossein Kazemi, Sr Curriculum Adv., FDPI
Mirjam Dekker, PM, FDPI

October 12 – November 8, 2020 Exam
www.fdpinstitute.org
Agenda

• Welcome

• About the FDP Institute

• The FDP Program
  • Outline of Curriculum
  • Do you have the background?
  • Reading materials & study tools
  • Steps to take in order to obtain your FDP Charter

• Q&A
FDP Institute: Mission & Goals

- The FDP Institute’s Mission:
  - To provide financial professionals with the knowledge necessary to succeed in an industry disrupted by the advent of big data and machine learning.
  - To advocate for the highest levels of professional ethics and standards.
  - To establish the FDP Charter as the global professional designation in the area of financial data science.

- The FDP Institute’s Approach:
  - Create a program of study that focuses on core concepts of data science and its applications in the financial industry.
  - Support FDP Charterholders’ efforts to continuously expand their knowledge of concepts and tools that enable them to stand out in their profession.
  - Support FDP Charterholders’ efforts to build a professional network.
FDP Institute: Advisory Board

• **Mike Chen**, Ph.D., Director Dynamic Equity, PanAgora Asset Management
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• **Lisa Schirf**, Former COO, Data Strategies Group and AI Research, Citadel
• **Apurv Jain**, Visiting researcher, Harvard Business School
45% of FDP Charterholders are in Asset Management

- Asset Management
- Finance
- Asset Allocator
- Service provider
- Public/NFP Bodies
- Investment Banking
- Other

23% of the FDP Charter Holders have Analyst in their title

Titles
## FDP Program: Curriculum Topics

<table>
<thead>
<tr>
<th>Topics</th>
<th>Exam Weight %</th>
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</thead>
<tbody>
<tr>
<td>Introduction to Data Science &amp; Big Data</td>
<td>5-10</td>
</tr>
<tr>
<td>Machine Learning: Introduction to Algorithms</td>
<td>5-10</td>
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<tr>
<td>Machine Learning: Regression, Support Vector Machine &amp; Time Series Models</td>
<td>5-10</td>
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<tr>
<td>Machine Learning: Regularization, Regression Trees, Random Forest &amp; Overfitting</td>
<td>5-10</td>
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<tr>
<td>Machine Learning: Classification &amp; Clustering</td>
<td>5-10</td>
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<tr>
<td>Machine Learning: Performance Evaluation, Back-testing &amp; False Discoveries</td>
<td>5-10</td>
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<tr>
<td>Data Mining &amp; Machine Learning: Naive Bayes &amp; Text Mining</td>
<td>5-10</td>
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<tr>
<td>Big Data &amp; Machine Learning: Ethical &amp; Privacy Issues</td>
<td>5-10</td>
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<tr>
<td>Big Data &amp; Machine Learning in the Financial Industry</td>
<td>30-50</td>
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FDP Program: Foundation Topics

- Understanding big data and alternative data
- Learning important ML algorithms
  - Regression & SVM: Used for prediction and classification.
  - Time series: Modeling of financial data.
  - Regression trees: Prediction with highly complex structures.
- Applying ML algorithms:
  - Overfitting problem: too much data and computing power.
  - False discoveries.
- Mining text:
  - Classification of text; sentiment analysis; text mining.
- Applying ethical standards:
  - Regulations; privacy; biases; transparency.
FDP Program: Financial Applications Topics

• ML in financial markets & financial services industry.
• Institutional investors’ use of alternative data sets.
• Factor exposure estimation of securities using ML.
• Security selection using ML.
• Evaluation of asset pricing models using ML.
• Textual analysis applications in insurance.
• Performance evaluation of trading strategies.
• Organizing and managing an ML trading shop.
FDP Program: Are you ready?

• Experience in the financial industry
  • Asset management; Insurance; Banking; Consulting; Accounting

• Do you have the background?
  • Download the free study guide: All exam questions are directly tied to Learning Objectives listed in the study guide.
  
  • Download the free curriculum readings: Most of the readings are available free of charge through authors’ websites. The main textbook:
    

  • Review the pages that are assigned in the study guide. Not everything is covered on the exam.
FDP Program: Are you ready?

• Background assumed by the FDP program

  • Financial Markets and Instruments: Undergraduate or graduate degree in finance or economics, CAIA, CFA or FRM.

  • Mathematics & Statistics: Undergraduate courses (basic algebra, calculus, probability and statistics), CAIA, CFA, or FRM.

  • Computer coding: No coding questions on the exam.
    • Two designated online classes covering either R or Python must be completed. Can be taken after the exam.

• FDP Exam:
  • One online exam; four hours.
  • Multiple choice questions: 60% of total grade.
  • Short essay questions: 40% of total grade.
FDP Program: Study Tools

PMR E-Book
6 required readings
$99 Exam Registrants

Topics in Financial Data Science
13 required readings
FREE ACCESS Exam Registrants

Sample Questions
Study Tool
FREE ACCESS Exam Registrants

Selected Chapters from 3 books
1. Data Science for Business
2. An Introduction to Statistical Learning
3. Big Data and Machine Learning in Quantitative Investment

Exam Registrants can look for best available price.
Approximate cost of hardcopies of books is $200
FDP Program:
Exam Registration & Fees

October 12 – November 8, 2020

<table>
<thead>
<tr>
<th>Registration Open</th>
<th>Early Registration Ends</th>
<th>Regular Registration Closes</th>
<th>FDP Exam Window</th>
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<tr>
<td>May 10, 2020</td>
<td>June 20, 2020</td>
<td>September 15, 2020</td>
<td>October 12 – November 8, 2020</td>
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March 29 – April 11, 2021

<table>
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<td>January 17, 2021</td>
<td>March 10, 2021</td>
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Exam Fees*

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<th>Early Registration</th>
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<tr>
<td>Enrollment Fee</td>
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<td>(non-refundable)</td>
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<td>Books and Materials</td>
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CAIA Members are eligible for a 20% discount on the Registration Fee

CAIA Association®

FDP INSTITUTE®
Webinars

Check our website www.FDPInstitute.org/webinars for:
- upcoming webinars
- Webinar recordings
- Slide deck
- Blogposts

Part of the Q42020 curriculum
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- Al Yazdani, PhD, Machine Learning Research Manager, State Street
Thank You

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