

## FIREBLAZE A.I SCHOOL

# Data Science with Python Certification



#### **PROGRAM OVERVIEW**

Fireblaze Artificial Intelligence School aims to meet the growing demand for talent in the field of analytics by providing industry-relevant training and education to develop business-ready professionals.

We have strong foundation of training students, college faculties and Company professionals. We hold a legacy of training 1000+ students 200+ faculties. Our students are placed in various companies such as Mu Sigma, Value Labs, Accenture and many more.

### **PROGRAM OBJECTIVE**

The Fireblaze AI School attempts to teach students/course-participants some of the core ideas in machine learning, datascience and AI that would help the participants go from a real world business problem to a first cut, working and deployable AI solution to the problem. Our primary focus is to help participants build real world AI solutions using the skills they learn in this course.

This course will focus on practical knowledge more than mathematical or theoretical rigour. That doesn't mean that we would water down the content. We will try and balance the theory and practice while giving more preference to the practical and applied aspects of AI as the course name suggests. Through the course, we will work on 10+ case studies of real world AI problems and datasets to help students grasp the practical details of building data driven solutions. For each idea/algorithm in ML/AI, we would provide examples to provide the intuition and show how the idea to used in the real world.

#### **DESCRIPTION OF PROGRAM**

- The duration of the program is for 1 Month. Out of which theory to practical ratio is 1:9.
- There are no pre requisite for this course.
- During this 1 month of Training the candidate will dive in to the world of Data Analytics and would be made versed with
  - Software Installation : Anaconda | Jupyter notebook
  - Python Programming
    - ~ History
    - ~ Feature
    - ~ Setting up path
    - ~ The Basics Arithmetic
    - ~ Control Statements
    - ~ Conditional Statements
    - ~ Strings Handeling
    - ~ Data containers: Lists, Dictionaries, Tuples
    - ~ Sorting
    - ~ Functions Randomness , User Defined

- ~ Importing libraries
- Data handling in Python with **NumPy** 
  - ∼ Introduction 2D and 3D array
  - ~ Objects Array Creation
  - ~ Routines Array from Numerical Ranges
  - ~ Indexing
  - ~ Slicing
  - ~ Mathematical Functions
  - → Statistical Functions
  - ~ Sort, Search, Counting Functions
  - ~ Arithmetic Functions
  - → Array Manipulation
  - ~ Linear Algebra
- Getting Started with Pandas
  - Introduction to pandas
  - ~ Data Structures Series, DataFrame
  - ~ Indexing
  - ~ Reindexing
  - ~ Dropping entries from an axis

- ~ Selecting Entries
- ~ Data Alignment
- ~ Summery Statistic
- ∼ Handling Missing Data
- ~ Hierarchical Indexing
- Concepts of Cleaning
  - ~ Merge
  - ~ Merge on Index
  - ~ Concatenate
  - ~ Combining
  - ~ Reshaping
  - ~ Pivoting
  - ~ Duplicating
  - ~ Mapping
  - ~ Replacing
  - ~ Renaming
  - ~ Binning

- Concepts Data Wrangling
  - ∼ GroupBy on DataFrames
  - ~ GroupBy on Dict and Series
  - ~ Aggregation
  - ~ Splitting Combining
  - ~ Cross Tabulation
- Data Visualisation using Matplotlib
  - ~ Plotting Line graph in
  - ~ Plotting Bar graph
  - ~ Plotting Histogram
  - ~ Pie Charts
  - ~ Scatter Plot
- Data Summarisation and Insight generation
- 1 Capstone Case Study projects for summarisation of the above part of the course.

#### **DESCRIPTION OF PROGRAM**

- Data Visualisation Using Seaborn
  - ~ Scatter Plot an its Types
  - ~ Swarmplot, Barplot, Count plot and Joint plot
  - ~ Box Plot
- Statistics
  - ~ Description Analysis & EDA
  - ∼ Probability Theory
  - ~ Number Theory
  - → Predictive Analytics
  - ~ Regressions
  - ~ Linear Algebra
- Machine Learning Algorithms
  - ~ Linear Regression
  - ~ Logistic Regression
  - ~ K Nearest Neighbour
  - ∼ K Means
  - ~ Support Vector Machine
  - Density Based Spatial Clustering Algorithm with Noise

- ~ Decision Trees
- ~ Random Forest
- Dimension Reduction
- Optimisation and Boosting
- Practical Projects based on every Machine Learning Algorithm.
- Multiple Capstone Case Study projects for summarisation of the course.

Additional information about the usage of Data Science, Machine Learning and Artificial Intelligence.

#### **KEY TAKEAWAYS OF THE PROGRAM**

- Candidates will be provided Certification in Data
   Science with Python from Fireblaze A.I School.
- Excellence Certificates, Fireblaze Goodies will be provided to the candidates whose performance will be outstanding during the Program.
- Equal opportunity would be given to each candidate for receiving a extended Job offer from Fireblaze Technologies to work as a Junior Data Scientist/ Product Manager depending on the Assessments.
- Our Placement Cell at Fireblaze A.I School will provide 100% placement assistance to candidates for getting job in the Industry.

#### STRUCTURE OF THE PROGRAM

• Duration: 3 Months

• Delivery Mode : Offline

• Training Duration: 10 Weeks (100 hrs)

Location : Fireblaze A.I School, Nagpur

• Vacancies : 10 Seats Strictly

For further details you can visit: <a href="www.fireblazeaischool.in">www.fireblazeaischool.in</a>
And also contact +91-93250 13467

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