



**GREYAT@M**

## 5 Day Data Science Workshop

Dive deep here to discover the wonderful learning journey ahead for you. 5 sessions to prepare you for a career in Data Science.

**2020**

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## About GreyAtom

GreyAtom is a boot camp-style immersive learning programme for data science, machine learning, and artificial intelligence. Aspirants learn technologies by working on real problem statements, and datasets from GreyAtom's industry partners. The learning platform, GLabs orchestrates the end to end learner experience - this is where people code up, follow a structured learning path, and get an instant assessment of their performance.

GreyAtom is on a quest to transform the career trajectories for learners in the emerging tech space.

- 3 years of boot camp-style programs
- 175+ Industry partners
- 140,000+ people upskilled
- 1,200+ careers transformed
- World-class mentors and curriculum
- Winner of YourStory SheSparks EdTech startup of the year 2018
- Finalist at TechEdXEurope 2019

## What GreyAtom is -



EdTech



Platform Product Company



Emerging Tech



Career Pivoting Programs



Upskiller



Selective



Underwrite quality of Students



Quality focused

## The GreyAtom Mission

- Change lives with meaningful career transitions
- Engage with best-in-class industry practitioners
- Highly relevant and advanced curriculum and programs

We stay with our learners till they reach their successful outcomes.

## Founders



Shweta Doshi  
(Co-Founder, Learning)

nielsen

BE, VJTI, Mumbai  
Ex- Associate Director of  
Analytics @ Nielsen



Mitul Thakkar  
(Co-Founder,  
Technology)

YAHOO!

MS, Computer Science,  
SUNY Binghamton  
Ex-Yahoo! / Co-Founder  
Customer360, Acquired  
by (NASDAQ:ININ)



Mayuresh Shilotri  
(Co-Founder)

Cognizant

Masters - Indian Institute  
of Technology Madras  
Ex-marketRx/ Cognizant  
/ Co-Founder  
Customer360, Acquired  
by (NASDAQ:ININ)

## Our Core Learning Philosophy

We founded GreyAtom to bridge the gap between the skills learners have and what the industry needs by bringing them together on our learning platform, GLabs, which provides hands-on coding experience, mentorship, and access to a huge peer community. We strongly believe that pure online, self-paced learning doesn't work. So we devised a hybrid approach, where there is a balanced mix of online learning and offline community interactions and that works the best!

## The 5 Day Data Science Workshop

5 days to unlock Data Scientist in YOU. The 5 Day Data Science Workshop is an online LIVE Mentor Led Workshop where you will attend 5 Sessions of 1.5hrs each and build a project. No Coding Experience is Required to join this workshop.

What will you get?



## + In Session Content

- 7.5 hours of training
- 5 LIVE Mentor Coding Sessions
- 1 Project in your GitHub
- 1 Blog Post on Medium
- 100 Days Study Plan eBook
- Priority Access to Workshops and Webinars by GreyAtom

- Certificate of Completion
- Unlimited Chat Support

## + Self Paced Content

- 123 Assignments
- 15 Quizzes
- 5 Cheat Sheets
- 4 Projects
- 12 months access to Learning Platform



## Which project will you complete?

Predict if the client would subscribe to a term deposit based on a marketing campaign



- **Customer Persona**

This will help the business identify common features of customers and run targeted campaigns

- **Target Audience**

This will help the business optimise the target audience for their new marketing campaign and run the campaigns with optimised budgets

- **Campaign Frequency**

You will recommend the optimum frequency interval to run a targeted marketing campaign without wasting much money

## What will we cover

You can join at any time and get instant access to upcoming batch and receive timely invites to attend sessions

Day	Topic	Description	Mentor
Day #1	Setting you up	<p>Project: Predict if the client will subscribe to a term deposit based on the analysis of the marketing campaigns the bank performed.</p> <ul style="list-style-type: none"> <li>• Introduction to GreyAtom</li> <li>• Problem Statement and Understanding the stakeholders</li> <li>• Introduction to Glabs</li> <li>• Setup Coding Environment</li> <li>• Setup Github Account</li> <li>• Setup Medium Account</li> </ul>	Dileep KVS
Day #2	Data Cleaning and Exploration	<p>Exploratory data analysis is an approach to analyzing data sets by summarizing their main characteristics with visualizations.</p> <ul style="list-style-type: none"> <li>• Load and Prepare dataset</li> <li>• Check Numeric and Categorical Features</li> <li>• Check Missing Data</li> <li>• Fill null values in continuous features</li> <li>• Check for Class Imbalance</li> <li>• Detect outliers</li> <li>• Univariate analysis of Categorical &amp; continuous columns</li> <li>• Bivariate Analysis – Categorical Columns</li> <li>• Treating outliers</li> </ul>	Dileep KVS

Day #3	Model Building and Insights	<p>Applying vanilla models on the data</p> <ul style="list-style-type: none"> <li>• Function to Label Encode Categorical variables</li> <li>• Fit vanilla classification models</li> <li>• Logistic Regression</li> <li>• DecisionTree Classifier</li> <li>• RandomForest Classifier</li> <li>• XGBClassifier</li> <li>• GradientBoostingClassifier</li> <li>• Feature Selection</li> <li>• Grid-Search &amp; Hyperparameter Tuning</li> <li>• Ensembling</li> <li>• Prediction on the test data</li> </ul>	Dileep KVS
Day #4	GitHub Showcase, Blogging and Presentation	<p>Creating your first Project on Github</p> <ul style="list-style-type: none"> <li>• How to choose and build your portfolio projects?</li> <li>• What are the ideal qualities of a portfolio project?</li> <li>• How to showcase your portfolio projects to the world (and potential recruiters)?</li> <li>• Sample Presentation</li> </ul>	Dileep KVS
Day #5	Interview Guides and Career Preparation	<p>Discover your learning style</p> <ul style="list-style-type: none"> <li>• What does your employer want?</li> <li>• Why do some people succeed?</li> <li>• The 100 Day Study Plan</li> <li>• What does a Data Science Interview look like?</li> </ul>	Kritika Agarwal

## Additional Self-Practice Material

### Sprint #1: Introduction to Data Science

1. Introduction to Data Science
2. Core Industry Use Cases
3. The Data Explosion
4. Data Scientists – What Do They Do?
5. Rule-Based Systems vs. Machine Learning
6. Misconceptions about Machine Learning
7. Quiz What is Machine Learning?
8. Supervised ML
9. Unsupervised ML
10. Semi-Supervised ML
11. Deep Learning
12. Quiz Types of Machine Learning
13. To ML or Not To ML
14. ML Workflow
15. The Path to Data Science

### Sprint #2: Getting Started with Python

1. Getting Started with Python
2. Why Python for Data Science?
3. Variables and print statement
4. Numbers
5. Strings
6. Lists
7. Dictionaries
8. Tuples
9. Mutable vs Immutable

10. Quiz Variables and Data Types in Python
11. What are Operators?
12. Arithmetic Operators
13. Comparison Operators
14. Logical Operators
15. Assignment and Bitwise Operators
16. Membership Operators
17. Identity Operators
18. Quiz Operators in Python
19. Cheat sheet Getting Started with Python
20. Concept Feedback
21. Getting Started with Python
22. Project Student Management System

### Sprint #3: Handling Program flow

1. Handling Program Flow in Python
2. The if-elif-else Statement
3. The while Loop
4. The for Loop
5. Loop Control Statements
6. Quiz Control Statements and Loops
7. Print and Input Statements
8. Opening and Closing Files
9. Quiz Files I/O
10. What are Errors?
11. Raising Exceptions
12. Exception Handling with Python
13. else and finally Clauses
14. Quiz Exceptions

15. What is a Function?
16. Scoping
17. Lambda Functions
18. Working with Higher Order Functions
19. Comprehensions
20. Quiz Functions
21. What is Object Oriented Programming?
22. Creating your Own Class
23. Quiz Object Oriented Programming
24. Cheat sheet Handling Program Flow in Python
25. Concept Feedback
26. Handling Program Flow in Python
27. Project Spy Games

#### **Sprint #4: Manipulating Data with Numpy**

1. Manipulating Data with NumPy
2. What are Arrays?
3. Important Array Features
4. Quiz Arrays in NumPy
5. Creating with Low-level ndarray Constructor
6. Creating with Existing Data
7. Creating with Numerical Ranges
8. Quiz Creating Arrays with NumPy
9. Indexing and Slicing
10. Vectorization
11. Broadcasting
12. Why NumPy Arrays over Lists?
13. Quiz Power of NumPy
14. Find Roots of a Quadratic Equation

15. Convert from Centigrade to Fahrenheit
16. Solving System of Equations with NumPy
17. Find a 3x3 Non Singular Matrix
18. Cheatsheet Manipulating Data with NumPy
19. Concept Feedback
20. Manipulating Data with NumPy
21. Project Make Sense of Census

#### **Sprint #5: Data wrangling with Pandas**

1. Introduction to Pandas
2. Pandas Series
3. Accessing Data in a Series
4. Pandas DataFrame
5. Creating DataFrames
6. Quiz Pandas DataFrame
7. File I/O
8. Quick Exploration of Data
9. Selection, Creation, and Deletion
10. Cleaning the Data
11. Exploring Categorical Data
12. Exploring Numerical Columns
13. Quiz Basic Pandas Operations
14. Conditional Filtering
15. Apply Functions
16. Groupby and Sorting
17. Pivot Tables
18. Merging DataFrame
19. Important Takeaways from Pandas
20. Quiz Advanced Pandas Operations

- 21. Additional apply task
- 22. Additional Groupby task 1
- 23. Additional Groupby task 2
- 24. Cheatsheet Data Wrangling with Pandas
- 25. Concept Feedback
- 26. Data Wrangling with Pandas
- 27. Project Loan Approval Analysis

### **Sprint #6: Visualize Data using Matplotlib**

- 1. Why Data Visualization?
- 2. Bar-chart and Anatomy of a Plot

- 3. Line Plots and Plot Customizations
- 4. Stacked Bar Chart
- 5. Histogram
- 6. Scatter Plot
- 7. Drawing Multiple Plots
- 8. Visualizing Data Effectively
- 9. Cheatsheet Visualize Data using Matplotlib
- 10. Concept Feedback
- 11. Project Visualization for company stakeholders

## Why GreyAtom

Our mission is to democratize emerging tech education by building the platform that guarantees learning outcomes for all learners. We are aiming to impact 5+ million of learners in the next 2 years.

## Here's where our alumni work



## GreyAtom's Success Stories

Our learners love us and that's reflected in their Google reviews, feedback to us. 40% of our learners join our programs post being Referred by their friends and Family. Our NPS is at a HIGH of 61 - ahead of most EdTech companies



### Abhini Shetye

*"I wanted to transition from telecom to data science. Joining GreyAtom, learning from mentors and prep with the career services team made that happen."*

Before:  
Content Writer at  
Towards Data Science

After:  
Data Analytics at PNB

[READ FULL STORY](#)



### Shradha Dash

*"If you have a strong desire to solve problems using data, you can become a Data Scientist. GreyAtom helped me transform that desire into a career!"*

Before:  
Fresher

After:  
Data Science Intern at  
SoluLab

[READ FULL STORY](#)



*"GreyAtom really brought the industry into the sessions. I still use the same concepts that I learnt during my hackathons and projects at my job."*

### Jasraj Date

Before:  
Fresher

After:  
Artificial Intelligence Engineer at Imotix

[READ FULL STORY](#)



Our learners have loved the experience so far and we pride on getting feedback like this-[Student Success Stories | How To Get Into Data Science](#)




## Mentorship

Mentorship has been known to be effective in bridging the knowledge gap and understanding the use of emerging technologies for business. An ideal mentor would be someone who has a working knowledge of emerging technologies and has actually solved business problems using them. These mentors are best placed to guide aspiring learners on the path to upskilling into niche emerging technologies.


Mentors share practical knowledge that they have accumulated over years of practice. They also advise the learners on how to build their portfolio such that they stand out from the rest of the crowd. Our data says that mentorship improves learning outcomes by almost 5 times!

The mentors do various interactive sessions with our learners ranging across code along sessions, talking about the problem statements they are working on, etc. The spectrum of these mentors range from folks working in Silicon Valley companies like LinkedIn, WalmartLabs, Facebook, Uber, Google to fantastic tech focussed companies in India like Qure.ai, Episource, Fractal Analytics, and many more.


With some of the best Data Scientists across the globe interacting with our cohorts, we add delight moments in the learning journey. Our mentor profiles are [here](#)




**Shantanu Kumar**  
HEAD OF AI PRODUCTS




MACHINE LEARNING NLP  
DATA WRANGLING LANGUAGE MODELS  
PYTHON +1




**Arunabh Majumdar**  
SENIOR DATA SCIENTIST




MACHINE LEARNING NLP




**Daniele Rosa**  
DATA SCIENTIST




MACHINE LEARNING NLP  
TIME SERIES




**Rishabh Gupta**  
SENIOR DATA SCIENTIST




MACHINE LEARNING NLP  
PROBABILITY AND STATISTICS  
TIME SERIES VISUALIZATION +2




**Sajjad Hussain**  
DATA SCIENCE LEAD




NLP MACHINE LEARNING PYTHON




**Rahul Mishra**  
SENIOR DATA SCIENTIST




PYTHON DATA WRANGLING  
MACHINE LEARNING




**Schaun Wheeler**  
SENIOR STAFF DATA SCIENTIST




DATA WRANGLING MACHINE LEARNING  
PROBABILITY AND STATISTICS PYTHON  
VISUALIZATION




**Fatos Ismaili**  
DATA SOLUTIONS ARCHITECT




MACHINE LEARNING NLP PYTHON




**Parag Pansare**  
ASSOCIATE MANAGER




MACHINE LEARNING NLP




**Prakash Vanapali**  
SENIOR DATA SCIENTIST




MACHINE LEARNING  
DATABASE LANGUAGES  
IMAGE PREPROCESSING




**Rohit Ghosh**  
DIRECTOR OF BD @ QURE.AI



MACHINE LEARNING PYTHON  
DATABASE LANGUAGES  
IMAGE PREPROCESSING



**Rajneesh Kumar**  
BIG DATA & DEEP LEARNING ENGINEER



MACHINE LEARNING PYTHON  
IMAGE PREPROCESSING

## Proof of your accomplishment

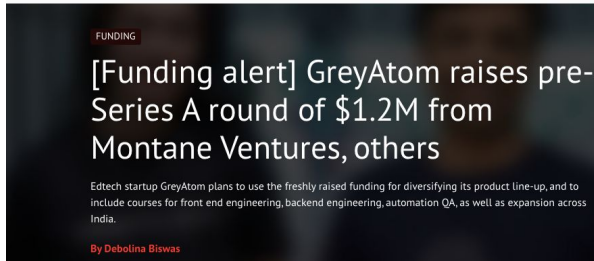
This Bootcamp comes with verifiable certificates that you can share on LinkedIn, and with employers, friends and family.



## GreyAtom in News

November 2019

YOURSTORY

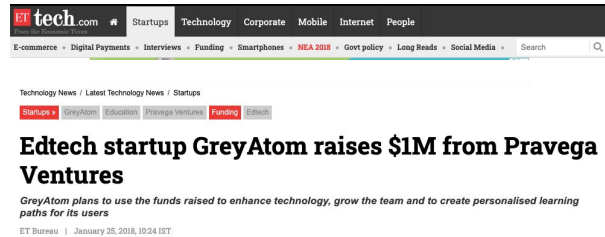


<https://yourstory.com/2019/11/funding-startup-edtech-greyatom-montane-ventures>

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January 2018

THE ECONOMIC TIMES



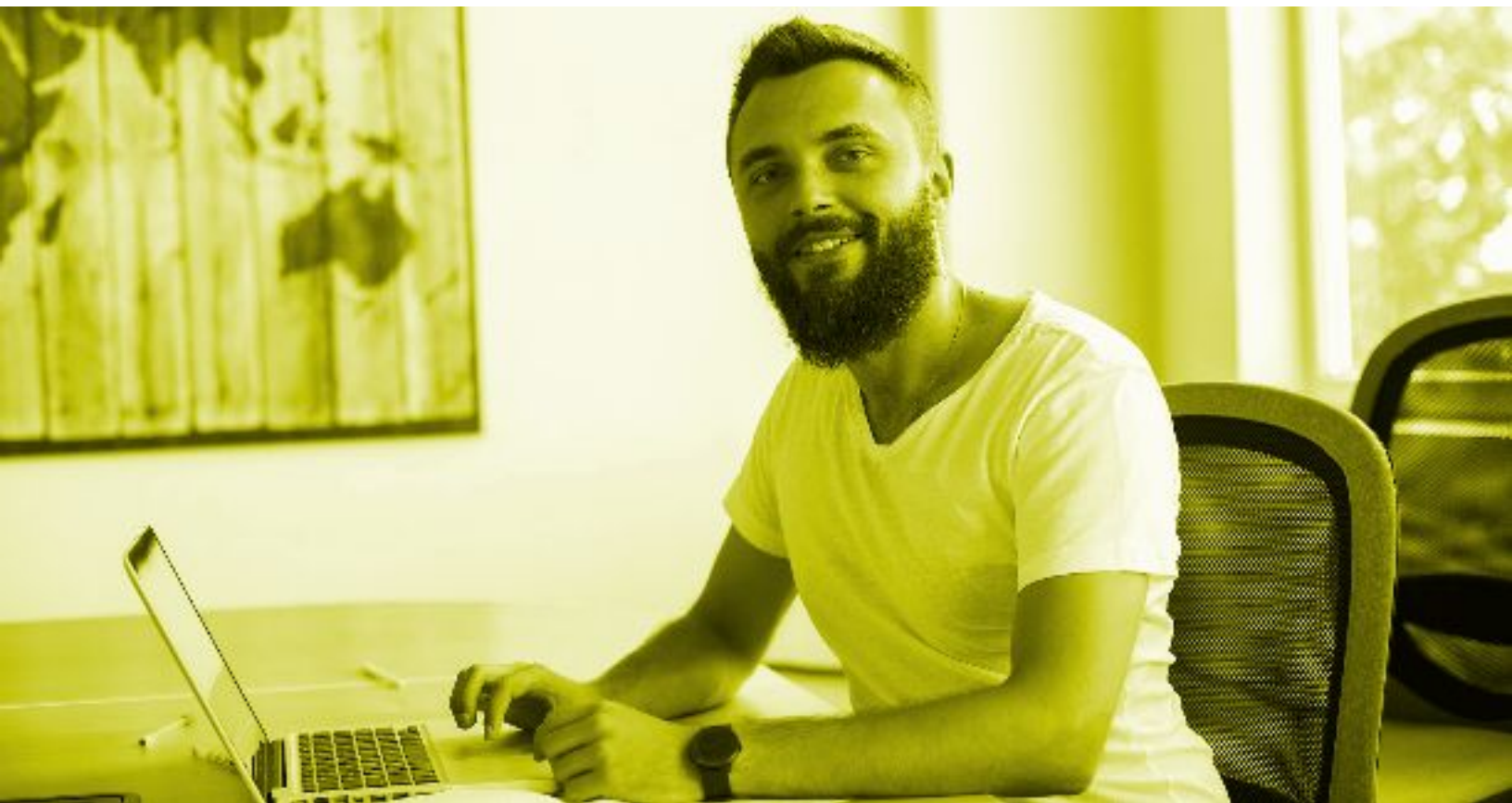
<https://tech.economictimes.indiatimes.com/news/startups/edtech-startup-greyatom-raises-1m-from-pravega-ventures/62645282>

<https://yourstory.com/2018/01/edtech-startup-greyatom-raises-1m-from-pravega-ventures/>

December 2019



<https://www.youtube.com/watch?v=XbbZfVu44OA>



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