



(/contest/fractal-  
analytics-  
hiring-  
hackathon/lb)



Registered

<b>Starts at</b>	Sat Jul 01 2017 00:00:00 GMT+0530 (India Standard Time)
<b>Closes on</b>	Sun Jul 02 2017 23:59:59 GMT+0530 (India Standard Time)
<b>Mode</b>	Online
<b>Fee</b>	Free
<b>Location</b>	Online
<b># Participants</b>	2468
<b>Prizes</b>	Job Opportunities with Joining Bonus upto INR 1,00,000

## Rules

1. The contest starts Saturday, 1st July 2017, 00:00:00 . The data set and the problem statement will be released at the same time.
2. No submissions would be accepted after the contest is closed.
3. Since this is a hiring hack, you are expected to solve the problem on your own. Any discussions / hints on approach will result in your dis-qualification.
4. There is NO PARTICIPATION FEE.
5. There is NO TEAM PARTICIPATION
6. The results as judged by Analytics Vidhya & Fractal would be final.
7. Participant must update their profile with authentic details and upload their latest CV. Otherwise, a participant will not be considered for the position.
8. A candidate will be eligible for the joining bonus only if he/she has performed well in the hack (based on leader board position), clears all the interviews and then joins the firm.

### Solution Checker

1. You are free to use solution checker as many times as you want.
2. Adding comment is mandatory for use of solution checker
3. Comments will help you to refer to a particular solution at a later point in time.

### Final Submissions

1. Setting final submission is mandatory. If you don't make final submission, your entry would be dis-qualified.
2. No submissions would be entertained after the hackathon ends.
3. Code file is mandatory while setting final submission. For GUI based tools, upload zip file of snapshots of steps taken by you, else upload code file.
4. The code file uploaded should be pertaining to your final submission. If we find any discrepancy between the two, your entry would be dis-qualified.



### Expected conduct

1. At any point in the hackathon, you are expected to respect fellow hackers and act with high integrity.
2. Slack Live Chat admins hold the right to blacklist / block any participant found to use foul / disrespectful language. Chat forum will be closely monitored.
3. Analytics Vidhya And Fractal holds the right to disqualify any participant at any stage of competition if found indulged in fraudulent practices.

## About Fractal Analytics Hiring Hackathon

Participate in Fractal Analytics Hiring Hack to claim your chance of glory – the best people will be shortlisted for hiring at Fractal Analytics. To top it up, the winner would take prize upto INR 1,00,000 in form of joining bonus. What are you waiting for? This might as well be the battle of your life. Register here and come back prepared as the clock strikes 12 midnight of 1st – 2nd July 2017.

## Company: Fractal Analytics

Founded in 2000, Fractal Analytics is a strategic analytics partner to the most admired Fortune 500 companies globally and helps them power every human decision in the enterprise by bringing analytics & AI to the decision-making process.

Fractal Analytics has a presence across 12 global locations including the United States, UK and India and has been recently featured as a “Hot Artificial Intelligence (AI)” company by Forbes. Fractal has also been recognized as a “Cool Vendor” and a “Vendor to Watch” by Gartner.”

## Here are the Job Opportunities

### 1. Senior Consultant - Advanced Analytics

Asia Pacific - Bengaluru/ Mumbai/ Gurgaon, Karnataka/ Maharashtra/ Haryana, India - Full Time

#### **Position Expectations**

- Develop sophisticated analytical frameworks that add value to the client and result in new projects and revenue streams for Fractal
- Develop and implement analytical methodologies, processes, and technological solutions that integrate diverse information solutions and generate analytical insights
- Manage a team of 3-4 analysts on advanced analytics engagements for a technology major
- Proactively identify new areas of engagement and work on sales pitches
- Manage project & client on a day-to-day basis, and improve existing processes
- Effectively provide consultancy to clients on various aspects of their business using data analytics

#### **Qualification & Experience**

- Knowledge of SAS/R mandatory
- Should have at least 4-5 years of hands-on modeling experience on SAS or R
- Knowledge of at least a few analytical approaches required
- Should have 1-2 years of experience in marketing/campaign analytics.
- Experience in Python / Machine Learning
- Excellent problem solving skills and communication skills required
- Should have worked on engagements that require interpreting findings & extracting insights

**Education:** Preferably an MBA or an Engineer with relevant experience

### 2. Data Scientist

Asia Pacific - Bengaluru/ Mumbai/ Gurgaon, Karnataka/ Maharashtra/ Haryana, India - Full Time

#### **Position Description**

Our artificial intelligence and machine learning team needs Data Scientists with the capability to perform independent statistical and machine learning research/ projects. If you are a problem solver with a curiosity for exploring new techniques and technologies in AIML (Artificial Intelligence & Machine Learning) space, then we



would like to talk with you. Individuals should be able to break down business problems into smaller components and implement ML approaches to empower the end business decisions

#### **Job Responsibilities**

- Ability to understand a problem statement and implement analytical solutions & techniques independently
- Work and collaborate with the project teams to deliver and create value for clients
- Fast learner: ability to learn and pick up a new language/tool/ platform quickly
- Conceptualize, design and deliver high-quality solutions and insightful analysis
- Conduct research and prototyping innovations; data and requirements gathering; solution scoping and architecture; consulting clients and client facing teams on advanced statistical and machine learning problems.
- Provide solutions but not limited to Customer Segmentation & Targeting, Propensity Modeling, Churn Modeling, Lifetime Value Estimation, Forecasting, Recommender Systems, Modeling Response to Incentives, Marketing Mix Optimization, Price Optimization

#### **Qualification & Experience**

##### **Mandatory:**

- Intermediate to expert level proficiency in at least one of R and Python
- Experience of working on a project end-to-end: problem scoping, data gathering, EDA, visualizations, modeling and insights
- Problem-solving: Ability to break the problem into small problems and think of relevant techniques which can be explored & used to cater to those
- Intermediate to expert level proficiency in statistical/ML predictive techniques such as regression, Bayesian methods, tree-based learners, SVM, RF, XGBOOST etc.
- Working experience and statistical clarity in traditional algorithms like time series modeling, dimensionality reduction, SEM, GLM, GLMM, clustering and related areas
- Structured thinking and articulating the algorithms used to internal project teams/ clients in a simplified manner

##### **Preferred:**

- Intermediate to expert level proficiency and thorough understanding of at least one of the upcoming technologies like deep learning, NLP, image processing, recommender systems
- Good to have experience of working in on one or more domains:
- CPG: pricing and promotion analytics, marketing analytics, trade promotions, supply chain management
- BFSI: cross-sell, up-sell, campaign analytics, treasury analytics, fraud detection
- Healthcare: medical adherence, medical risk profiling, EHR data, fraud-waste-abuse
- Fair understanding of distributed computing in multicore and/or clusters, especially using R/Python
- Experience in participation at global analytics contests like Kaggle
- Experience working within a Linux computing environment and use of command line tools
- Ability to work in a team in an agile setting, familiarity with JIRA and clear understanding of how version control software works, especially Git.
- Experience in designing basic UI – JavaScript, CSS, and PHP
- Operating knowledge of cloud computing platforms (AWS, especially EMR, EC2, S3, and the AWS CLI)
- Thorough grasp at data structures including RDBMS, NoSQL, MongoDB etc.

### **3. Senior Data Scientist**

Asia Pacific - Mumbai, Maharashtra, India - Full Time

#### **Role Brief:**

We are looking for an experienced candidate passionate about Artificial Intelligence and its applications. The ideal candidate must have proven expertise in Artificial Intelligence (including Deep Learning algorithms, GPU programming, distributed computing), Machine Learning and/or Natural Language Processing. The candidate must also have expertise in programming, traditional Machine Learning algorithms such as Random Forest, GBM etc., algorithm design and usage. We are looking for people who love challenges and design new things. You will lead a small, accomplished team of AI researchers and engineers building new and interesting AI applications across banking, financial services and other domains

#### **Must Have:**

- 4+ years experience in AI and Machine Learning



- Masters/PhD in Computer Science, Math, Engineering, Statistics, Economics or other quantitative fields from top tier institute
- Programming expertise in atleast two of Python/Java/Scala
- Preferred experience with large data sets and distributed computing (Spark/Hadoop)
- Experience with Deep Learning and AI packages (e.g., Theano/TensorFlow/DeepLearning4j)
- Knowledge of traditional Machine Learning algorithms like Random Forests, GBM etc.
- Fluency with SQL databases
- Proven experience in leading data driven projects from definition to execution
- Strong problem-solving skills

**Nice to Have:**

- Experience in servicing clients for analytics in Banking/Financial Services
- Experience with databases such as Cassandra, MySQL

## Registration Fee

Free

## Problem Statement

Welcome to Antallagma - a digital exchange for trading goods. Antallagma started its operations 5 years back and has supported more than a million transactions till date. The Antallagma platform enables working of a traditional exchange on an online portal.

On one hand, buyers make a bid at the value they are willing to buy ("bid value") and the quantity they are willing to buy. Sellers on the other hand, ask for an ask price and the quantity they are willing to sell. The portal matches the buyers and sellers in realtime to create trades. All trades are settled at the end of the day at the median price of all agreed trades.

You are one of the traders on the exchange and can supply all the material being traded on the exchange. In order to improve your logistics, you want to predict the median trade prices and volumes for all the trades happening (at item level) on the exchange. You can then plan to then use these predictions to create an optimized inventory strategy.

You are expected to create trade forecasts for all items being traded on Antallagma along with the trade prices for a period of 6 months.

**Evaluation Criteria:**

Overall Error =  $\text{Lambda1} \times \text{RMSE error of volumes} + \text{Lambda2} \times \text{RMSE error of prices}$  Where Lambda1 and Lambda2 are normalising parameters

## Data

**Data Dictionary:**

Variable	Definition
ID	Unique_transaction_ID
Item_ID	Unique ID of the product
Datetime	Date of Sale
Price	Median Price at Sale on that day(Target Variable_1)
Number_Of_Sales	Total Item Sold on that day(Target Variable_2)
Category_1	Unordered Masked feature
Category_2	Ordered Masked feature
Category_3	Binary Masked feature



- ## Solution Checker

Choose File No file chosen

Choose File No file chosen

Solution Description (for your interest)

Join Slack Live Chat (<https://www.analyticsvidhya.com/datahacksummit/>)



Subscribe to emailer

