ANALYTICS FOR INTERNSHIPS

An IT Analyst and a Business Analyst (BA) are two very different roles in companies. A business analyst is a person who bridges the gap between IT and general management using data analytics as a tool. A BA helps analyses various domains in a business and provides data-driven insights and recommendations to help move the business forward.

In almost every internship process, the first round is an OT (Online Test). Aptitude marks in the first round will take you to the interview room. Beyond that, the research you have done about the industry and the company plays a major role in you getting Interned.

CASE STUDIES AND GUESSTIMATES

Case Studies

Case Study interviews and Guesstimate Questions are very common in an analytics company selection process.

In a Case Study round, a data set will be provided for analysis (you can use Python/R/MATLAB for data analysis) and you will be questioned based on it. So, learning data analytics tools like MS Excel, Python, R, etc. can give you an advantage in these companies' processes.

Guesstimates

Guesstimates can either be standalone questions or a part of a case study. Guesstimates are questions where you are expected to quantify a value with very less data/resources.

For example – What is the total number of Hyundai cars sold in India in a year?

In a guesstimate, the way you approach the problem step-by-step is much more important than the final value you arrive at.

Resources

Guesstimates (explanation with examples) - http://www.streetofwalls.com/finance-training-courses/consulting-case-study-training/consulting-guesstimate-cases/

"Case in Point" is a very good book for case studies and guesstimates. Below is the link to the book. It will be very useful if you read through it once.
https://www.academia.edu/37490479/Case_in_Point_9_Complete_Case_Interview_Preparation

DATA ANALYTICS

Topics

- Probability Distributions (Uniform, Bernoulli, Binomial, Normal, Students' T)
- Descriptive Statistics (Mean, Median, Mode, Variance, Standard Deviation)
- Inferential Statistics (Standard Error, Margin of Error, Confidence Intervals)
- Hypothesis Testing (Rejection Region, Significance Level, Z-Test, T-Test, P-Value)
- Machine Learning (Regression, Classification, Clustering)

Skills Required

- Python or R (basics)
- Machine learning
- SQL

Online Courses

- Udemy: The Complete Data Science Bootcamp (covered from basics), Machine Learning A-Z (focused ML)
- Coursera: Machine Learning by Andrew NG
- Datacamp: Intro to SQL for data science, Intro to Python for data science
- edX: The Analytics edge (R)

Try to get certificates of the courses that you complete.

QUESTIONS

Analytics

1. What is Analytics?
2. What are some practical uses of Analytics in the world today?
3. What are the different kinds of Analytics (Predictive, Prescriptive, etc.)?

Statistics

1. Mean, Median, Mode
2. Formulas and practical uses
3. Standard deviation
4. Regression (Eg: Connect age and height of a human being, how will you do it?)

Logical Reasoning and Problem Solving

You'll be given hypothetical questions and they gauge your critical thinking, problem-solving, decision making, and risk identification.

Eg: How much easier is it to cross a road with a divider than it is to cross one without a divider? Tell me the impact on safety, probability of crossing and time taken to cross.

Trick Questions

Its important not to fall into the trap when the interviewer poses you one. Think carefully before answering. Eg: What is heavier, a quarter kg of iron or a quarter kg of cotton?

Guesstimate Questions

- How many tennis balls can you fill into a Boeing 747?
- How much milk is consumed by Trichy in a day?
- How many sandwiches are sold in our campus in a day?

OTHER TIPS

- Know what the relation between Big Data, Data Analytics and Data Mining is.
- Read through a lot of Quora articles and google about them to get to know them more.
- Learn the difference between Business Analytics and Business Intelligence (BI).