DATA SCIENCE OPTIMIZATION

COMPANY OVERVIEW

Tata Group is an Indian multinational conglomerate company headquartered in Mumbai, India. It encompasses seven business sectors: communications and information technology, engineering, materials, services, energy, consumer products and chemicals. Tata Group was founded in 1868 by Jamsetji Tata as a trading company. It has operations in more than 80 countries across six continents. Tata Group has over 100 operating companies with each of them operating independently.

Tata Sons is the promoter of all key Tata companies and holds the bulk of shareholding in these companies.

BACKGROUND

The Tata companies together serve over million consumer and commercial customers today across several products and services. In order for the Tata companies to better understand customer and client needs and preferences, action life stages, needs, value, and potential, and enhance value and experience; the Tata companies need to develop robust data and information management capability and customer analytics. The vision is to eventually create the best in-house capability for data analytics amongst any large corporate. To achieve the above aims, it has been decided to establish an independent Tata company focused on building a common data analytics platform and help Tata Group companies. This company is being incubated in the initial phase as a division of Tata Industries and will subsequently be structured as a separate company to build Big Data Analytics and Data Science capabilities catering to but not limited to the 'Consumer' brands of the group.

Tata Insights and Quants – Journey to Date

Company: Tata - Insights and Quants – A Newly started division by Tata Industries.

http://www.livemint.com/Companies/PCgvCZILuJKV68UKVHZRJO/With-new-analytics-arm-Tata-aims-to-make-better-sense-of-da.html

Employer Brand: : www.tataiq.com

Tata iQ in 18 months of its inception was recognized in the list of Analytics India Magazine's (AIM) Top 10 most desirable Analytics Indian Firms to work for in 2016:

http://analyticsindiamag.com/top-10-analytics-firm-wish-worked-2016/

Generating Value for Customer:

Fourteen Tata companies are partnering Tata Insights and Quants (Tata iQ), a Big Data firm, to analyse data collected from users, consumers and make sense of it to put changes in place

http://www.livemint.com/Companies/5om8ebrv6p02jGCcRB3j3K/Tata-companies-use-Big-Data-to-craft-strategies.html

1

Contributing to Community through big data:

In line with the Tata group's philosophy of giving back more to the society than what it takes, Tata iQ, Tata group's big data and decision Sciences Company.

Okhai partners with Tata iQ to deliver big impact through big data

Company : Tata Insights and Quants
Role   : Data Science Optimization
Level   : Analyst – Associate - Senior Associate
Role Type   : Individual Contributor
Location   : Mumbai | Bangalore | Jamshedpur | Kalinga Nagar – All Options open

Job Description

This is an exciting opportunity to be a part of the team that develops foundational capabilities enabling enhanced analytics and measurement, critical to shaping global digital adoption and experience strategies. The incumbent will be part of the Digital Analytics & Insights team and will report to the Manager in charge of Digital Analytics. He/she will be an individual contributor working on Chatbot development and implementation for various industries and domains.

Key Responsibilities:

- Apply Optimization/ Simulation algorithms using a variety of tools to improve process efficiency across business functions
- Perform detailed analysis of business problems and technical environments in designing the solution
- Conversion (Formulation) of business problem into a mathematical model using Linear/Mixed Integer Programing technique

- Apply Optimization/ Simulation algorithm:

    o   Simplex
    o   Interior Point
    o   Cutting Plain
    o   Dynamic Program
    o   Linear/ Mixed Integer Program
    o   Agent Based Simulation
    o   Discrete Event Simulation
    o   Column Generation

- Apply Optimization/ Simulation:

    o   Logistics/ Inventory planning
    o   Job Scheduling
    o   Stock Cutting
    o   Network Optimization

2

- Build mathematical optimization models using tools, such as AIMMS, CPLEX, GLPK, to model business problems in support of decision-making
- Lead and manage Proof of Concepts and demonstrate the outcomes quickly
- Document use cases, solutions and recommendations
- Work analytically in a problem-solving environment
- Work in a fast-paced agile development environment
- Coordinate with different functional teams to implement models and monitor outcomes
- Work with stakeholders throughout the organization to identify opportunities for leveraging organization data and apply Optimization/ Simulation techniques to improve process efficiency across business functions - Operations, Products, Sales, Marketing, HR and Finance teams
- Help program and project managers in the design, planning and governance of implementing Optimization/ Simulation solutions

Experience and Skills:

- Experience in Manufacturing, Aviation and Logistics
- 3+ year of work experience in optimization, simulation and data science
- Experience using AIMMS, CPLEX, GLPK, GUROBI etc.
- Experience in building Predictive models (Regression, Classification and Clustering) and Forecast models will be an added advantage
- Experience in Python and R will be an added advantage

Education qualification:

- Bachelors/ Master degree in Operations Research, (Applied) Mathematics, (Applied) Statistics, Industrial Engineering or other disciplines with significant experience in mathematical optimization