Beam Data

Data Science Consulting Service Introduction

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About Us

- **Beam Data** is a Toronto based consulting company that provides Data and AI consulting services to clients in various industries. We provide a range of services from data strategies, data capability assessment, data collections, to data project implementations, as well as AI skills training. Whether you are an early-stage startup that needs help with data strategies or a mid-sized company that needs project resources on building end-to-end machine learning solutions, Beam Data is here to help tackle your most challenging problems.
- We also provide the customized corporate training services on Python, Data Science, Machine Learning, Cloud Computing, Big Data and workshops for companies of all sizes. Our past clients include major banks, retail, telecommunications, tech startups, and human resources.

Our Services

- Data Strategies
- Data Collection & Labeling
- Data Engineering
- Data Analytics
- Data Science & ML

1. Data strategies

We help clients in the early-stage of their data initiatives build data roadmaps and give advice on data strategies. Services include:

- Existing data capability assessment
  - Assessment of current data capabilities
  - Suggest tools and platforms to use and talents that need to be added
- Help build 2-3 year data and AI roadmap
  - Help build a data roadmap to meet company's growth needs
  - Help shape core data strategies that fit into the product roadmap
- Help set data team roadmap and build hiring plans
  - Who is the first data person to hire?
  - Do you hire data engineer first or data scientist?
  - What type of talents fit your company's needs
  - Tailor job postings and help with candidate screening

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2. Data Collection & Labeling

We help our clients build data collection strategies along with data collection and labelling implementation. Services include:

- Data collection strategy support
  - Help assess data collection needs
  - Research on data sources
  - Data collection feasibility analysis
- Data scraping
  - Help write web scraping code to collect data from the web
  - Help collect data through web data APIs
- Data annotation
  - Help with manual data labelling on a smaller scale
  - Help the client work with crowdsourcing platforms to label/annotate data when the volume of data is big

3. Data Engineering

We have strong experience in building end-to-end data pipelines. We're familiar with modern data engineering stacks such as Apache Airflow, Serverless Compute, Kafka/Kinesis, Apache Spark, etc. Services include:

- Cloud Infrastructure Setup
- Data Ingestion and Integration Service
  - Create data connectors for data ingestion
  - Build ETL/ELT pipelines for data warehouse/lake (Hadoop, Spark, Snowflake, etc.)
  - Build MOLAP cubes for BI reporting
- Data Pipeline Automation
  - Automate data pipelines using Apache Airflow, Luigi
  - Build feature datasets for machine learning
- Big Data Processing
  - Processing terabyte scale data using big data frameworks such as Spark, Hadoop, and NoSQL databases
  - Log ingestion and monitoring using Elasticsearch, Logstash, and Kibana

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4. Data Analytics

Beam Data has deep knowledge and experience in data analytics. Our specialties include

- Building visualization dashboards to support business decision making
  - Data cleaning and preprocessing for visualization
  - Familiar with both commercial visualization tools (PowerBI, Tableau, Quicksight) as well as open source tools such as Plotly Dash, ReDash, Superset
- Business forecasting
  - Deploying forecasting models in production for consumer electronics, retail, supply chains
- Customer analytics and predictive modeling
  - Customer acquisition models
  - Customer segmentation
  - Predictive churn modeling for customer retention
  - Retail product assortment
  - etc.

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5. Data Science & Machine Learning

Beam Data has helped clients implement and deploy various machine learning models. Capabilities include:

- Machine Learning & AI
  - Natural language processing
    - Sentiment classification
    - Topic clustering & extraction
    - Named entity recognition
    - Text summarization
  - Computer vision
    - Image classification
    - Object detection
    - Semantic segmentation
  - Recommender systems
    - Full-text search & recommendation
    - Collaborative Filtering or Deep Learning based recommender systems
- MLOps
  - Model deployment using SageMaker, Kubernetes, MLflow, and Kubeflow
  - Model pipeline automation

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