# INDIUM

Using Predictive Analytics and Data Visualization Indium Powers Smarter Decisions & Drive Innovation for a FinTech Company

SUCCESS STORY

Client Overview

The client is a dynamic and innovative FinTech company specializing in leveraging data-driven solutions to unlock insights into company performance and growth potential. With a strong focus on utilizing publicly available information, they aim to provide actionable intelligence for investors, businesses, and stakeholders. Their vision is to bridge the gap in financial analysis, particularly for smaller ventures and unlisted companies, by transforming raw data into meaningful, predictive insights. As a forward-thinking player in the FinTech industry, they are committed to empowering smarter decision-making and driving innovation in financial analytics.
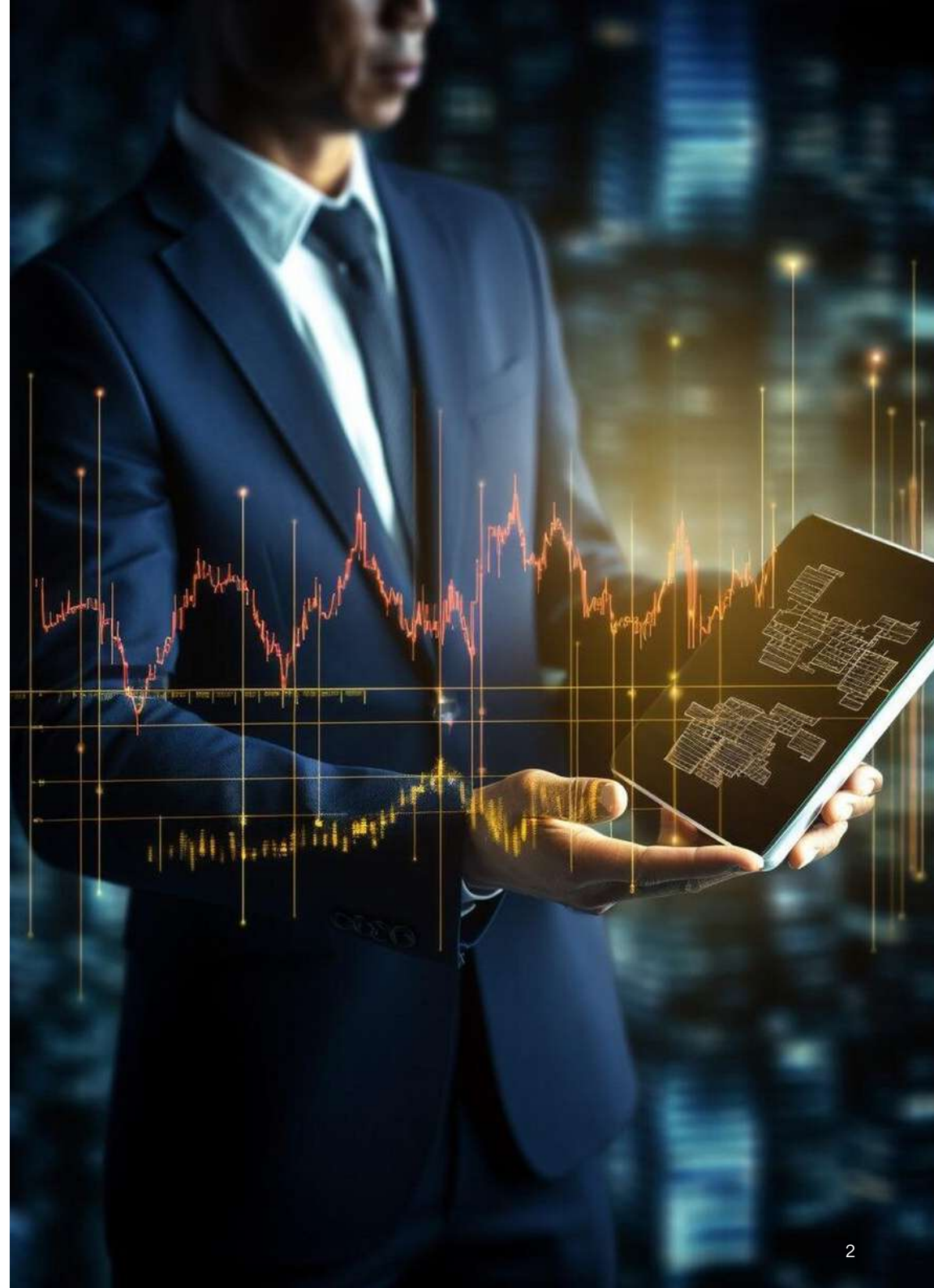
The Firm Grapples with Turning Public Data into Actionable Performance Insights

The client needed an analytics development partner to create a solution to utilize publicly available company information, analyze their past performance, and project their future growth potential.

Business Challenge:

Limited Data Availability: Obtaining relevant financial information for smaller ventures and unlisted companies is challenging due to scarce data in the public domain, especially revenue details.

Disparity in Accessibility: Unlike listed companies, minor and unlisted entities often have less publicly accessible information.

Scattered Data Formats: Available data is fragmented across various formats such as tables, PDFs, plain text, and CSV, complicating archiving and analysis.

Lack of Standardization: The absence of comprehensive and standardized data for these companies creates a significant hurdle in gathering and analyzing financial information.

Increased Burden: The fragmented and limited nature of the data poses a substantial challenge for practical financial analysis and decision-making.

Indium's Triple-Play Solution: Data Challenges

Indium developed a three-pronged approach to tackle insufficient and unstructured data:

1 **Reusable Data Extraction:** Utilized daily scraping to extract structured data from the public domain and employed Power Law modeling for cases where direct extraction was impossible.

2 **Flexible Data Architecture:** Stored data in MySQL after cleaning unstructured data.

3 **Data Analytics:** Analyzed and presented data using Tableau and QlikView to comprehend performance trends easily.

Step 1:

The Scraping Process

Data scraping is a straightforward process of extracting data from the web and public resources. However, deriving value from the extracted data requires a series of complex steps, including:

Careful selection of data sources.	Customizing code to handle different data formats.	Thorough cleaning of the data.
Transforming unstructured data into a structured format.	Storing the data in a query-friendly database.	

This process, commonly called data harvesting, involves multiple steps and considerations. Indium has expertise in processing data from diverse and complex formats such as PDFs, unstructured plain text, and tables within tables. They have implemented automated routines to schedule data extraction from multiple sources, ensuring regular updates. The system is designed to handle errors and exceptions, promptly notifying managers of issues like irregular updates, format changes, or system downtime.

With Indium's streamlined data extraction process, data can be extracted from over 100 sources in less than 10 minutes without manual intervention. These meticulously gathered ingredients are now ready for the Sous Chef to cook, enabling further analysis and insights.

Step 2:

The Transformation & Engineering Process

Simple data scraping is insufficient for comprehensive analysis as additional information often needs to be refined and appended in areas lacking data. Indium Software recognized this need, transformed data, and created new fields for the analytics process. The processed data was then securely stored in a cloud infrastructure, providing a robust foundation for visualizing past revenue trends and predicting future revenue potential. Indium's ultimate objective was to develop a visualization product.

To ensure optimal performance and efficiency, Indium took several steps:	Optimized the fields in the databases, retaining only the mandatory ones for speed and efficiency.
Optimized the calculations for derived fields to enhance processing speed.	Coded the system to perform these calculations during non-peak hours, minimizing any impact on system performance.

Step 3:

The Data Visualization Process

Indium developed a product to assist retail investors, institutional investors, and equity managers in uncovering valuable insights about a company's financial health and revenue. These insights go beyond basic profit and loss information and traditional stock chart indicators. The product enables investors to make informed decisions by comparing actual and projected revenue.

Unlocked Revenue Insights and Investor Potential: Setting the Stage for Broader Market Expansion

Indium's solution, serving as a pilot, demonstrated four companies' revenue and growth potential for the upcoming quarter. The FinTech venture will leverage this success to showcase its product to external investors and FinTech experts. Indium will assist the client in expanding the product to multiple stock groups and shaping a larger vision.

Key techniques implemented by Indium included:

▶ **Automated Data Collection:** Indium developed a robust routine for automated data collection from multiple sources. The collected data was standardized.

▶ **Data Cleaning and Organization:** Unstructured data underwent cleaning processes to remove inconsistencies and unwanted noise. The cleaned data was stored in organized SQL tables.

▶ **Statistical Techniques**: Statistical techniques such as Power Law and Levenshtein Distance were applied to crunch the data, achieving over 98% accuracy in predictions during analysis.

▶ **Scalable Big Data Technology:** The product was built using scalable Big Data technology, ensuring efficient calculations and storage aligned with the client's vision.

The client plans to develop the solution further, targeting different audiences, including retailers, mutual fund houses, equity advisors, institutional investors, and more.

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About Indium

Indium is an AI-driven digital engineering company that helps enterprises build, scale, and innovate with cutting-edge technology. We specialize in custom solutions, ensuring every engagement is tailored to business needs with a relentless customer-first approach. Our expertise spans Generative AI, Product Engineering, Intelligent Automation, Data & AI, Quality Engineering, and Gaming, delivering high-impact solutions that drive real business impact.

With 5,000+ associates globally, we partner with Fortune 500, Global 2000, and leading technology firms across Financial Services, Healthcare, Manufacturing, Retail, and Technology—driving impact in North America, India, the UK, Singapore, Australia, and Japan to keep businesses ahead in an AI-first world.

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