

Retailer Data Ingestion Platform

"Rhoynar team helped in building a large system that can work with data feeds from multiple retailers, run AI analysis on the feeds to make sure the content is accurate, and raise alarms when it notices smart alarms when it noticed any spurious data.

Ernesto M

Business Challenges:

The Data Operations team at CSI was looking for an automated data ingestion platform that could ingest retailer feeds and run analysis on them. The Data Platforms would be fed with large volumes of retail data from multiple retailers, including weekly promotional offers (e.g., "50% off") along with prices (of the same product) across different geographies. The Rhoynar team analyzed the data feeds to isolate different types of anomalies with the data. We used this as a backbone for building models which can provide smart predictions on when the data fields were incorrect.

This avoided accidental updates of all devices with incorrect promotions or pricing data. This resulted in keeping our devices up-to-date with the latest data feeds coming from retailers.

The project was implemented in 3 months and supported 3 major retailers and their pricing and promotion feeds.

Results:

The Data Platform reduced the number of support cases for Data Operations by 40% and also helped in keeping devices updated with latest information from retailers. The Data team can now focus on other tasks instead of debugging data feeds, thereby increasing their productivity. CSI was able to improve the availability and reduce latency for devices using pricing & promotional updates, and be assured that there were no pricing discrepancies between what the device displayed and what was available at checkout.

The project was implemented using SQL, Azure Blob Storage for managing the data feeds. The AI algorithms were developed using XGBoost and other gradient descent techniques. The web-app for exception handling and notifications was developed using React (Frontend) and NodeJS (backend).

Project Details:

- **Tech Stack:** SQL and Blob Storage for Data Storage and Transfers. XGBoost model for AI predictions. React and NodeJS for anomaly notifications web-app. PowerBI for reporting purposes.
- **Data Platform:** Data ingestion, storage, validation, cleansing etc. Tools used included: Azure Blob Storage, SQL Server 2016, Power BI.
- **Team:** This was a part of larger project that involved multiple teams across CSI's business units. The team worked with Data Platforms (SQL) to ingest data feeds from retailers.
- **Project Duration:** The Data Platform project was implemented in six months. The Data Team had to continue with their day-to-day work of ingesting new feeds and processing them for anomaly analysis, while the Data Infrastructure team built this platform alongside other parts of the larger data management system at CSI.
- **Customer Value:** Data Platform helped Data Operations team at CSI reduce the number of support issues by 40% and also kept devices updated with latest information from retailers. The Data Team can now focus on other tasks instead of debugging data feeds, thereby increasing their productivity. CSI improved the availability and reduced latency for devices product/pricing updates.

Technologies Used:



Our Guarantee:

At Rhoynar, we believe in providing honest and exemplary customer service to our clients. We understand that the client may have hesitations in employing any consulting company for any internal project. *Will the solution meet all our needs? Do they really have the expertise and experience in delivering this solution? What if it is not extensible and requires constant upkeep? Will adequate training be provided to our staff after the project is over? What if the technologies they use become obsolete? Will they consultant have enough expertise in the said domains?*

We guarantee that we will meet your project requirements and deadlines. If for any reason we are unable to deliver, you don't pay us a penny.

We take pride in meeting all the customer expectations on time and this has made our customers very happy with our services. This is why over 90% of our new business comes from referrals by existing customers.

Call us now for a free discussion on how we can assist you with your automation needs.

Conclusions:

Mobile App MVP development is a great option to get your idea up and running quickly. Rhoynar Software was able to build InstruktApp in just three months, allowing us gather real-time feedback from customers before we even launched the Mobile App on AppStore or Playstore. The beta feedback launch also provided us with building the right priorities that a user would need before we launched the app.

Contact Us:

Ph: (855) 574-6962
Cell: (303) 408-9848

www.rhoynar.com
contact@rhoynar.com

www.facebook.com/rhoynar
www.twitter.com/rhoynarsoft