

Empowering FinTech organizations to make better bid pricing

Industry

FinTech

Location

US

Technologies

 Azure
  AWS
  Kubernetes
  BLOB Storage

 Azure AD
  C#
  .NET
  Vue.js
  SQL
 T-SQL

CLIENT

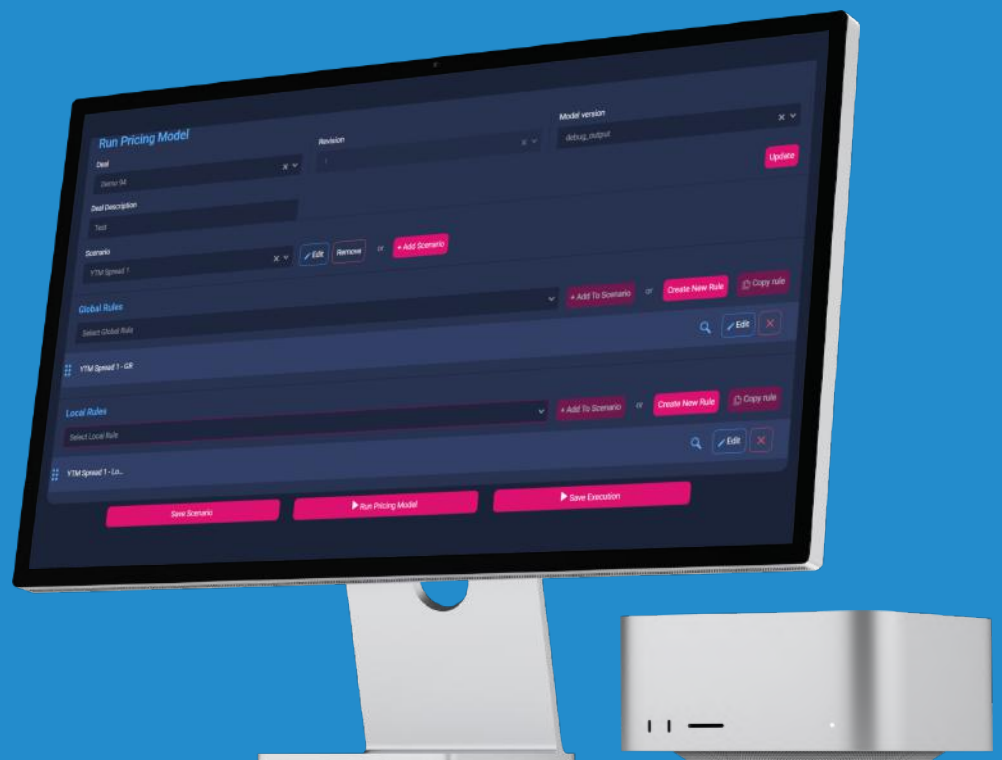
With AI and machine learning, our client provides a full-service suite of financial technology applications. They aimed to minimize clients' and partners' investment risks. Their goal was to make it an actual financial platform that offered specialized expertise in loan risk analytics, portfolio diligence, and valuation to asset managers.



CHALLENGE

The main business objective of our client is to acquire a real estate loan pool that comes with thousands of scanned collateral documents. These docs, often unsorted and unstructured, contain essential info about the constituent properties, their lien and title status, details, assignments, and other key variables which determine the risk profile of the property.

These variables often come as raw datasets that are sometimes hard to interpret for standard software, and that's why they needed a tailored solution. They partnered with CIGen to build a module that can exactly evaluate the risk profile and thoroughly calculate pricing for the deal.



SOLUTION

The solution we built is remarkably flexible in terms of functionality and design. A department can define their own specific data fields in the system, without requiring assistance from a development team. The interface adjusts and adapts accordingly to the plethora of fields that pop up from the pulled data.

It is a simple, secure, and user-friendly system that allows authenticated users to adjust different parameters (numerical, arrays, vectors, etc.) and then visualize them as graphs or charts based on those parameters. Beyond that, they can create subset rules and build various pricing model scenarios. Then, within a click, the user launches a cloud-based ML algorithm that makes exact loan calculations within seconds.

As a result, collateral document analytics helps to determine the bid price for acquiring a deal based on the risk profile derived from the analytical information.

The screenshot displays a dark-themed user interface for the iGen system. It features several panels with input fields for various loan parameters, each accompanied by a question mark icon for help. The panels include:

- Property Tax Rate:** 0.02
- Foreclosure Insurance Rate:** 0.03
- FHA/USDA Timeline Cap:** 8
- Max SS Balance:** 0.95
- Default Requirement:** 3
- Credit Spread:** 0.01
- Property Insurance Rate:** 0.02
- Legal Cost:** 0.00
- Curative Expense:** 0.00
- Servicing Rate:** 0.01

Below these, there is a "Loan Modification" section with a "+" button and two dropdown menus: "FRMExtend" and "CheckConsecDQ".

A separate panel contains the following fields:

- Capitalize:** True
- Defer:** False
- Target Payment Reduction:** 1
- Target Term:** 5
- Max Total Term:** 3
- Minimum Modified Interest Rate:** 123
- Delinquency Limit:** 53

FEATURES:

- 1 Uploading, storing, and versioning the tape data from [the Excel file](#).
- 2 [Setting](#) up the indexes and values into pricing scenarios, [managing](#) and [storing](#) them.
- 3 Pricing the tape using machine learning modules and AWS cluster on demand [for each request](#).

