

Navigating Fraud Prevention through AI-Powered Signature Matching



The Customer

The customer is an Indian Banking and Financial Services Company that deals with a large volume of documents that require signature verification. They were looking for a solution that could automate the signature matching process and improve the accuracy of the results.

The Challenge

Developing a signature matching solution that accurately extracts and matches signatures from various document types. The solution needed to be scalable and customizable to accommodate the customer's evolving needs.

The Solution

CriticalRiver collaborated with a data engineering and AI/ML platform to develop Momentum-powered AI-driven RESTFUL APIs for Signature Matching. The solution consists of two-way processes: signature extraction and matching. The extraction process involves detecting signatures and locating their positions in a document. To extract signatures, users call the secure extraction API with a scanned image. The API returns the locations and confidence scores of all signatures found. The matching process involves finding similarities between two signature images, removing background noise, resizing signatures, and correcting their orientation.

The Results

The solution developed by CriticalRiver and the data engineering and AI/ML platform improved signature matching accuracy by 40%, reduced processing time for signature extraction and matching, and provided a customizable and scalable solution.

Impact Delivered

- 40% improved signature matching accuracy
- 30% increased operational efficiency
- 25% higher online compliance

Solution Components

- Momentum-powered AI-driven RESTFUL APIs
- Neural network-based model
- Secure extraction API
- Scalable and customizable solution