HabileLabs

Accelerating Art Housing Finance with Aadhaar Masking in 0.3 Seconds



Client: Art Housing Finance, India
Home Loan Finance

Introduction

Art Housing Finance, a leading home loan provider in India, faced a critical mandate from the Reserve Bank of India (RBI): to mask sensitive Aadhaar details within their extensive digital document repository. This regulation required obscuring the initial eight digits of the Aadhaar number and the QR code, all while preserving the integrity of other crucial information. Recognizing the urgency of this compliance and the potential impact on daily operations, Art Housing Finance sought a reliable and efficient solution to meet this stringent regulatory requirement.

The Challenges

The Aadhaar masking project presented several significant hurdles for Art Housing Finance:

- **Massive Data Volume and Variety:** The company manages a substantial and diverse collection of financial documents, including Aadhaar cards, loan applications, CIBIL reports, and bank statements, existing in various file formats.
- **Strict Regulatory Compliance:** Adherence to the RBI's precise guidelines for Aadhaar data masking was non-negotiable to avoid significant penalties and protect their reputation.
- **Tight Implementation Timeline:** Art Housing Finance faced a stringent deadline of just one month to implement a fully functional solution and achieve complete compliance.
- **Stringent Security Environment:** The bank operated within a highly secure environment based on an Ubuntu server with no direct internet access, posing considerable deployment challenges.

The Solution

- **Intelligent Document Processing:** Employed advanced pattern recognition and machine learning (ML) models to accurately categorize diverse document types and specifically identify Aadhaar cards.
- **Precise Aadhaar Detection and Masking:** Integrated OCR, computer vision, regex, and AI ensure accurate Aadhaar detection and masking.
- **Secure Offline Deployment:** Secure Offline Deployment via Docker on Art Housing Finance's Ubuntu Server (16-core, 32GB RAM).
- **High-Performance Processing:** AI models process files in just 300ms, ensuring efficient large-scale document handling.
- **Seamless DMS Integration:** Developed RESTful API to enable seamless masking integration with Art Housing Finance's DMS.

Business Impact

- **Achieved 100% Regulatory Compliance:** RBI compliance for Aadhaar masking achieved within one month, preventing penalties and ensuring operations.
- **Data Security Across a Vast Repository:** Masking Aadhaar data across thousands of daily documents, the solution significantly strengthened data security.
- **Drastic Reduction in Processing Time:** Achieving 300 milliseconds (0.3 seconds) per file, the automated solution offers a substantial improvement.
- **High Accuracy:** Achieved 99% accuracy in detecting and masking Aadhaar details.
- **Seamless Integration with Existing Infrastructure:** Smooth, efficient transition via API-integrated DMS, minimizing workflow disruption

Why Art Housing Finance chose HabiLelabs?

- HabileLabs demonstrated deep expertise in developing and deploying advanced AI and machine learning solutions for complex data processing challenges.
- HabileLabs had a strong understanding of regulatory requirements and a proven ability to deliver solutions that meet stringent compliance standards.
- HabileLabs showcased the technical capability to deploy solutions in highly secure, offline environments, addressing a key concern for Art Housing Finance.
- HabileLabs' commitment to delivering high-performance and accurate solutions aligned perfectly with Art Housing Finance's need for a fast and reliable masking process.

More than tech, we create the financial foundation.

The Conclusion

This case study underscores HabileLabs' proficiency in developing and deploying innovative AI-driven solutions that effectively address critical business challenges and regulatory mandates. By leveraging cutting-edge technologies and a deep understanding of client requirements, HabileLabs successfully empowered Art Housing Finance to achieve full compliance with RBI guidelines for Aadhaar masking. The solution not only enhanced data security and operational efficiency but also demonstrated HabileLabs' commitment to delivering exceptional results and exceeding client expectations in the financial services sector.

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