

Project Title: AUTOMATED BORROWER VERIFICATION FOR LOAN WAIVERS

ABSTRACT

The Automated Borrower Verification for Loan Waivers system streamlines the borrower verification process by leveraging image processing, Optical Character Recognition (OCR), and data validation techniques. The system takes images of Aadhar cards and smart cards as input, which are pre-processed to improve the accuracy of data extraction. Using OCR, it extracts critical information such as Aadhar numbers, names, addresses, dates of birth, and smart card numbers from the images. The extracted data is then validated against predefined eligibility criteria to ensure accuracy and authenticity. The system cross-verifies the borrower details from both the Aadhar and smart card, checking for consistency. Once the data is validated, the system generates confirmation documents for approved entries. If the extracted data is inconsistent or invalid, the system triggers alerts or logs the issue for manual review. This automated process reduces the potential for errors, accelerates the verification process, and ensures reliable verification of borrower eligibility for loan waivers. Additionally, the system incorporates advanced image pre-processing techniques to enhance the quality of the input images, ensuring better recognition accuracy even with low-quality scans. It utilizes machine learning models to handle variations in card layouts and fonts, further improving the robustness of OCR. The algorithm is designed to handle large volumes of data efficiently, providing scalability for institutions managing numerous loan waiver applications. The system also includes an audit trail feature, maintaining a record of each verification step for transparency and compliance. By automating the process, the system significantly reduces the manual workload, increases operational efficiency, and speeds up loan waiver approvals while minimizing the risk of fraudulent claims.