

AI-POWERED LOAN ELIGIBILITY ADVISORY SYSTEM

Leveraging Artificial Intelligence for Intelligent Credit Assessment

THE PROBLEM LANDSCAPE

Traditional loan application = time-consuming +
paper-heavy

Users face confusion about eligibility and
interest rates

Manual verification delays processing

Lack of personalized guidance for different
customer profiles

ADVANTAGES

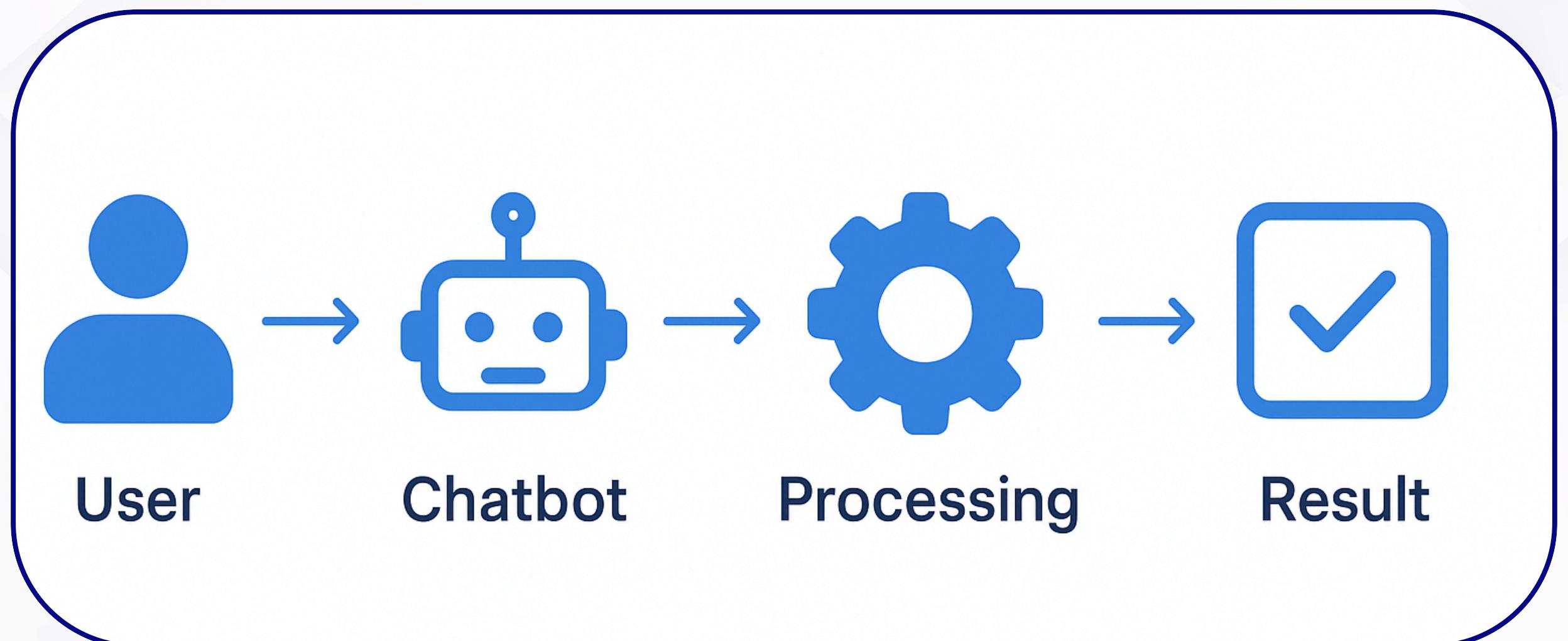
1. Instant, accurate loan eligibility checks
2. Smart OCR reduces manual data entry
3. User-friendly chatbot interface
4. Scalable, secure, and modular system
5. AI-driven decisions with 92% accuracy

PROJECT GOALS

- 1.** Simplify the loan eligibility process using AI and automation
- 2.** Build a chatbot that provides instant, accurate answers
- 3.** Enable document scanning through OCR
- 4.** Deliver a seamless, conversational experience for all users

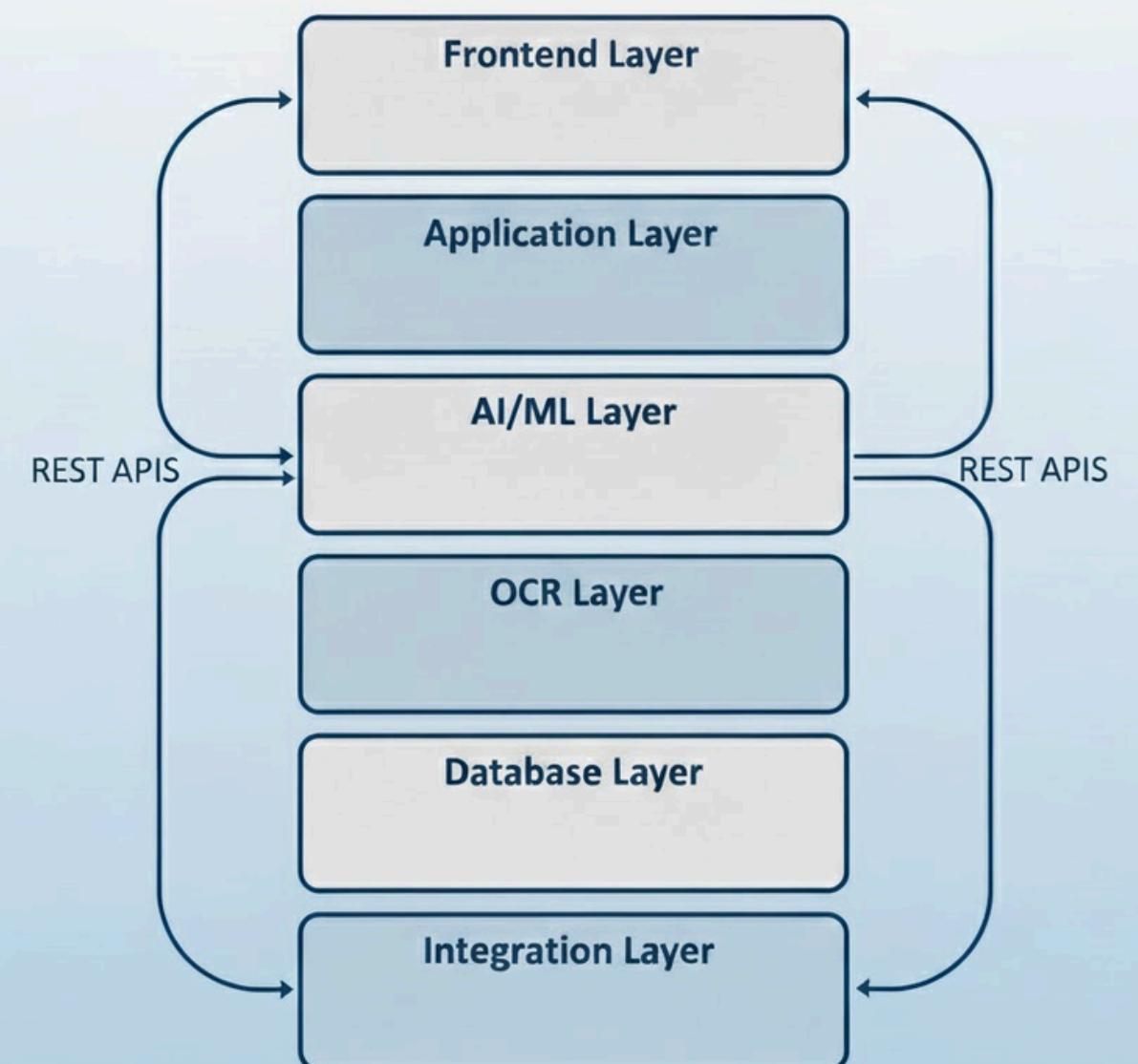
WORKFLOW OVERVIEW

- User → Chatbot → Processing → Result
- Interactive + Automated flow



SYSTEM ARCHITECTURE

Slide 5: System Architecture



FRONTEND DESIGN

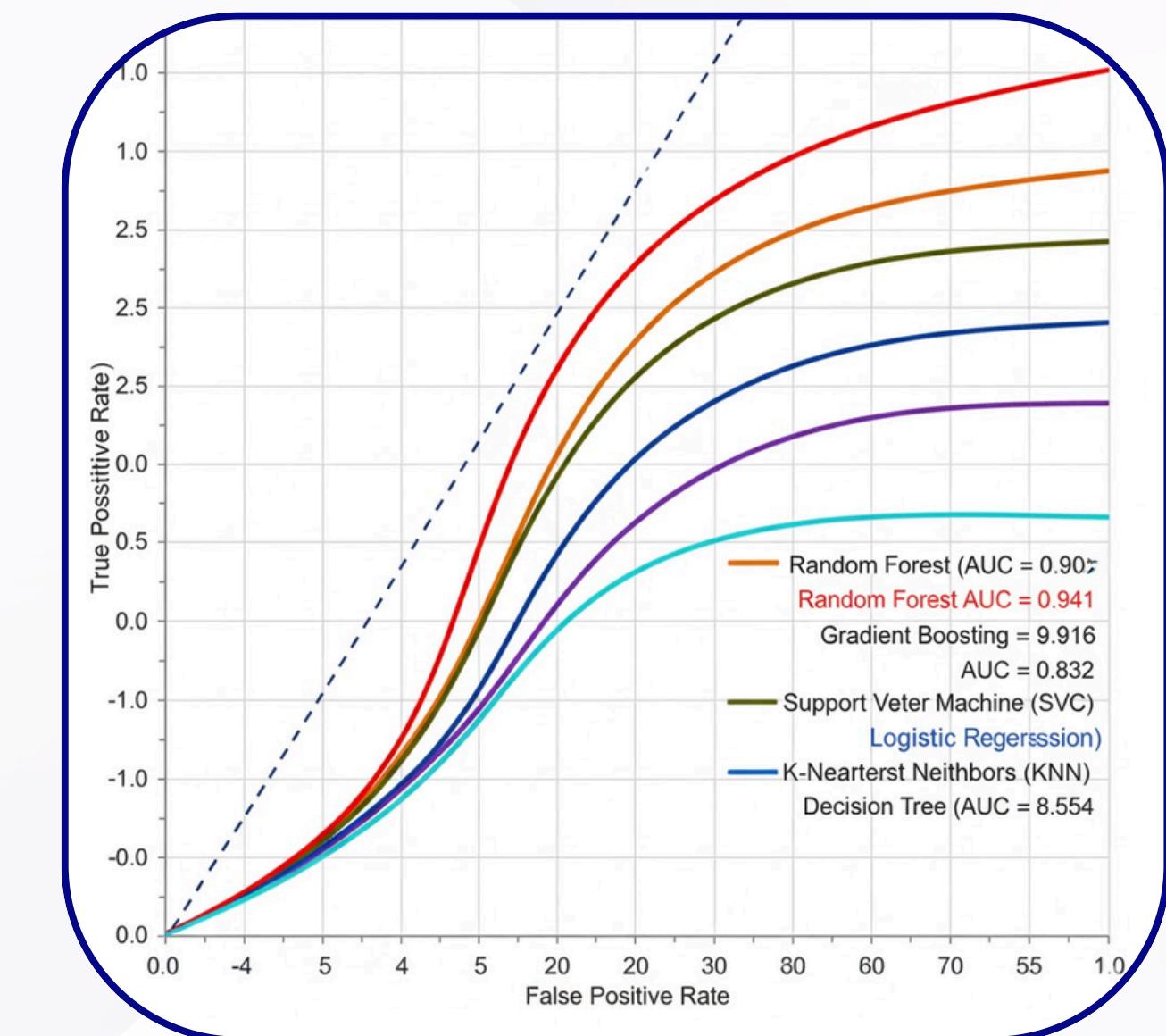
- Chat-like interface mimicking real conversation flow
- Upload section for bank statements, ID proofs
- Instant feedback messages on eligibility
- Responsive for both desktop and mobile devices

BACKEND FUNCTIONALITY

- Handles logic & communication
- Connects user requests with intelligence layer
- Ensures reliability & speed
- Error handling, logging, and session management implemented

AI/ML COMPONENT

- Model Used: Random Forest Classifier
- Performance Metrics: Accuracy ~94%, Precision ~89%
- Outcome: “Eligible” / “Not Eligible” prediction and a report



OCR INTEGRATION

- Extracts fields: name, salary, PAN, income details
- Auto-detects key data
- Integrated with backend for validation
- Reduces manual entry and improves speed by ^70%



TESSERACT

DATABASE DESIGN

- Fields store user inputs, OCR outputs, model results
- Relationships: One user → multiple loan queries
- Ensures data persistence, consistency, and security



RESULTS & HIGHLIGHTS

- Successfully automated loan eligibility prediction
- Reduced decision time from minutes → seconds
- OCR accuracy: ~95% on clean documents
- Chatbot response time: <1.5 seconds
- Highly scalable architecture for real-world deployment
- Positive user feedback on ease of use

FUTURE SCOPE

- **Voice-Enabled Assistance:** Enable speech-to-text loan queries
- **Multilingual Chatbot Support:** Cater to users in regional languages
- **Real-Time Bank API Integration:** Fetch actual interest rates and eligibility from live data
- **Cloud Deployment:** Host on AWS/GCP for scalability and reliability
- **User Dashboard:** Add analytics for users to track previous loan inquiries

CONCLUSION

- Loan Gyan Bot bridges the gap between AI and finance
- Combines OCR + ML + Chatbot for real-time eligibility checking
- Reduces human effort, increases accuracy, and improves accessibility
- A step forward in AI-powered digital banking

- THANK YOU...