

The Paperless Engine

Intelligent Document Processing (IDP)

● AI/ML Technical Documentation ● Production Systems ● Fintech Innovation ●

Technical Documentation Series

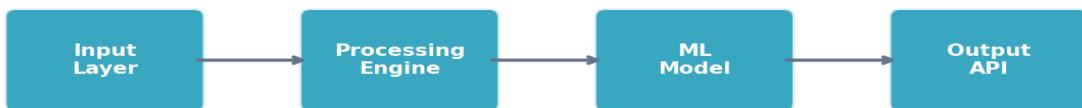
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Executive Summary

Intelligent Document Processing transforms unstructured documents into actionable data using multimodal AI that understands both text and layout.

95%+ Extraction Accuracy	10x Faster Than Manual	99.8% Error Reduction
LayoutLM Model Architecture	1000+ Doc Types	<3sec Processing Time

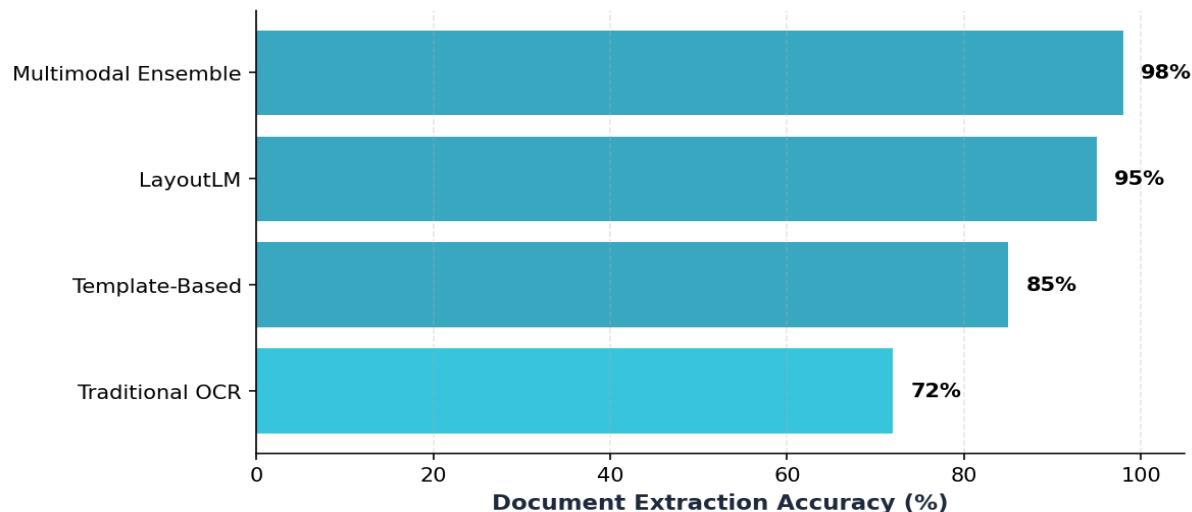
Multimodal Transformer Architecture



• Model Components

- **LayoutLM:** Understands document structure and spatial layout
- **Donut:** OCR-free document understanding
- **Vision Transformers:** Image-based document analysis
- **NLP Extractors:** Entity recognition and relationship extraction

Processing Pipeline



Transformation Impact: IDP reduces manual data entry by 95%, eliminates 99.8% of errors, and processes documents 10x faster than humans while maintaining audit trails and compliance.

Key Applications

• Financial Documents

- Invoice processing and GL coding
- Bank statement parsing
- Tax form extraction (W-2, 1099, etc.)
- Contract analysis and metadata extraction

• Compliance & Governance

- Version control for contract lineage
- Regulatory metadata tagging
- Cross-document entity resolution
- Audit trail maintenance