



DEEPSIGHT

SOLUTIONS CATALOGUE

Magic SW:

A 30+ Year Journey of adapting New Age Technologies



1990

Foundation



1994

Interactive Websites



1998

Web Based Applications



2016

MagicFinServ launched, Enterprise Data Management



2014

MagicBox – Cloud based SaaS product, Media Publishing



2002

Immersive Learning Solutions



2017

Blockchain offerings with AI based automated



2018

AI, ML, NLP, Cloud based New Age Tech offerings



2020

RegTech Compliance solutions offerings



2022

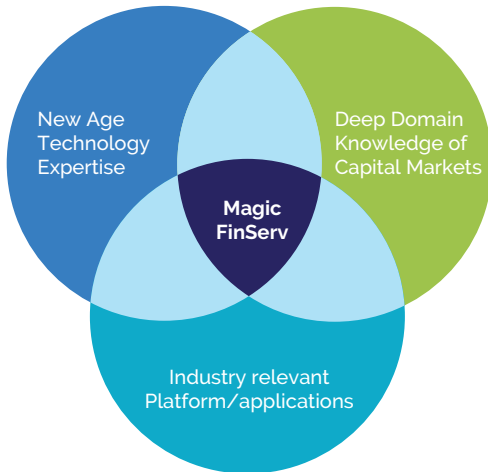
Crypto market data extraction AI based KYC & expense management solution offerings

DeepSight launched

Magic FinServ

Adapting New Age Technologies to scale

1. Capital Markets /Buy Side focused
2. Leveraging NewGen Technology (AI/ML, Blockchain, Cloud)
3. Delivering Digital Transformation
 - We solve last mile problems by providing Pre and Post processing solutions integrated with underlying industry platforms.
 - Disrupting the Status Quo by optimizing Ops & IT for disproportionate benefits
 - We measure our success by improving the ROI of your customers



- ✓ 02 Global Locations
- ✓ 15+ Delighted Clients
- ✓ 20+ Years of Domain Expertise

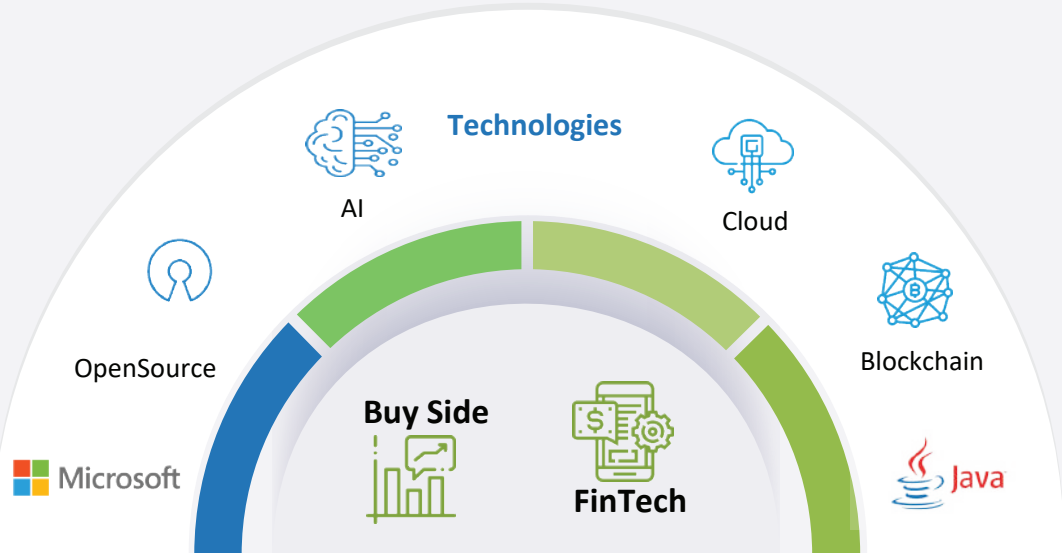
Markets we service

Key Customers

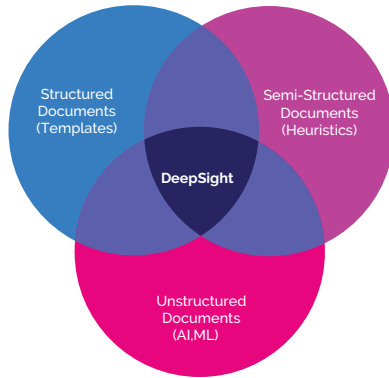
Top 10 Hedge Fund (New York)



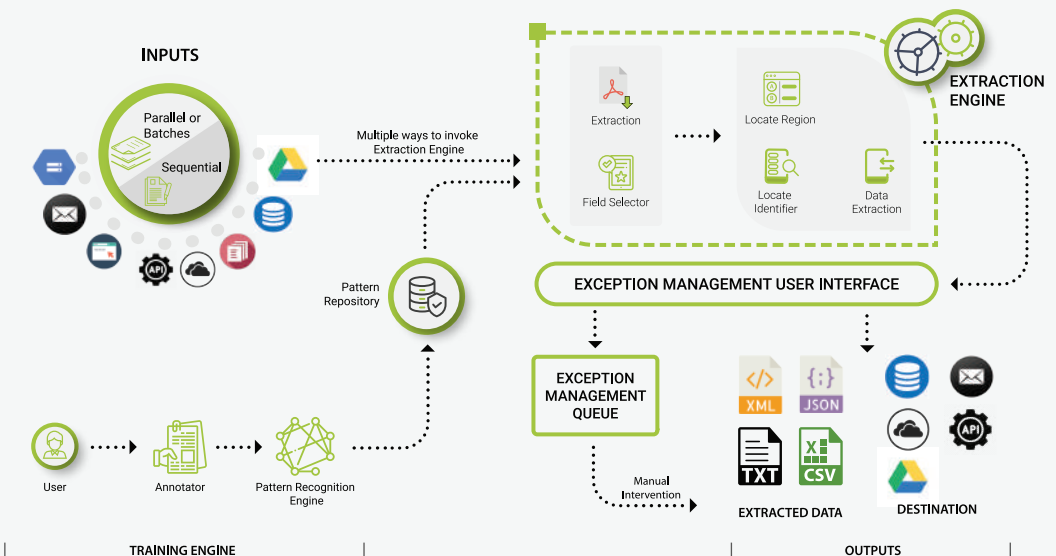
Market-Making Platform for Institutional Wealth Management
Leading Endowment Fund



Introducing DeepSight



DeepSight is an accelerator driven solution for comprehensive extraction, transformation and delivery of data from a wide range of structured, semi-structured and unstructured data sources leveraging cognitive technologies of AI/ML along with other methodologies so as to provide a holistic last mile solution.



Out-of-the-Box Features of DeepSight



Classification

Magic's intelligent document content recognition performs accurate identification, classification and segregation of documents



Cleansing

Incorrect, Out-of-date, Redundant, Incomplete, Incorrectly Formatted extracted data is cleansed utilizing DeepSight's reverse lookup algorithm and pre-trained models



Enrichment

DeepSight extracts data from multiple connected sources which are required in the normal course of processing and evaluation



Interoperability

DeepSight's API driven flexible architecture and supports all major environments (Linux/Windows etc.), allowing it to easily integrate with existing client ecosystems – platforms, applications with a diverse technology stack. Platform fully supports containerization.



Extensibility

DeepSight is configured with additional technologies such as Rule Engines, RPA, API, etc. to deliver a complete last mile solution rather than just a Data Extraction Utility



STP

DeepSight enables unsupervised operation. No active monitoring is required as the system will be implemented with an exhaustive exception workflow to alert users for any manual input

DeepSight Solutions- Some Representative Examples

Our platform for Data Extraction and Seamless Integration of last mile solutions



Client onboarding/KYC

- Extract and process a wide set of structured/unstructured documents (e.g tax documents, bank statements, driver licenses etc.)
- From diverse data sources (email, pdf, spreadsheet, web downloads, etc.)
- Posts fixed format output across several third-party and internal applications for case management such as Nice Actimize



Trade/Loan Operations

- Trade and loan operation instructions are often received as emails and attachments to emails.
- DeepSight intelligently automates identifying the emails, classifying and segregating them in folders.
- The relevant instructions are then extracted from emails and documents to ingest the output into order/loan management platforms



Invoice Management

- Invoices and expense details are often received as PDFs or Spreadsheets attached to emails.
- DeepSight Identifies types of invoice – e.g deal related or non-deal related or related to any business function legal, HR etc.
- Applies business rules on the extracted output to generate general ledger codes and item lines to be inputted in third-party applications (e.g Coupa, SAP Concur).



Contracts Data Extraction

- Buy Side firms deal with several types and numbers of service agreements, credit agreements, etc
- Operations related details, Covenants, rate tables, etc have to be extracted and updated in Client Master.
- These are complex, large documents requiring a specialist to analyze.
- DeepSight can be trained to look for specific details and content across several documents.

Use Case #1 - KYC Data Extraction

Credit Risk & Fraud Analytics requires a comprehensive utility that can extract and process a wide set of unstructured documents, data sources and ingest the output into a defined set of fields spread across several internal and third-party applications.

Magic's proposed solution:

Magic Proposed DeepSight Data Extraction APIs so as to integrate it with client's lifecycle management tool. APIs has the ability to:-business and data specific rules to ensure maximum accuracy for data extraction of critical data elements.

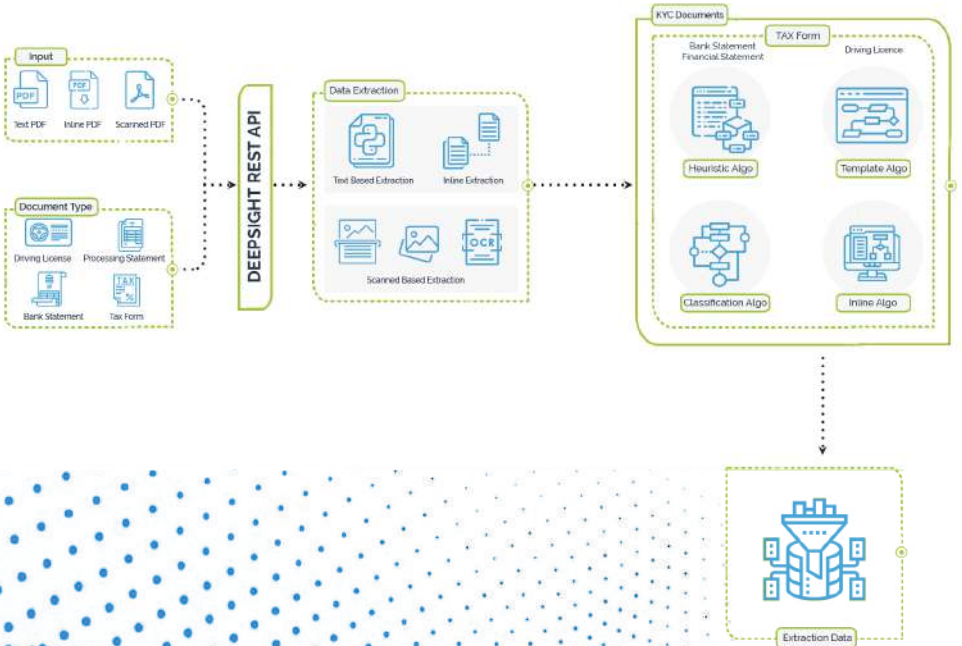
Parse Diverse Formats :- KYC document can exist in form of Images, Image based PDFs, Inline Forms, Text documents etc. All of these formats can be easily parsed through the APIs by leveraging DeepSight's Pre Processing Pipeline which corrects and enhances images and other documents for better OCR accuracy.

Document Type Classification :- Solution not only identifies and segregates different documents but also classifies subcategories under each KYC document. For e.g. Driving license belonging to different states in US.

Data Extraction :- Solution employs a combination of Template Based Algorithm leveraging spatial information of the data elements in the document and a Heuristics Based Algorithm leveraging business and data specific rules to ensure maximum accuracy for data extraction of critical data elements.

Use Case #1- KYC Data Extraction

KYC Data Extraction (Fraud Detection)



NICE
ACTIMIZE

Use Case #2 - Trade Operations Use Case (e.g. Loans)

In a typical large bank setup large volume of emails and other document inputs are received and processed on daily basis. The key data may be embedded in the email message or in the attachment and the document formats include PDF, TIF, DOCX, MSG, XLS etc. Team involved manually go through each email or attachments containing different Loan Instructions, review and extract Critical Data Elements (CDEs). Team then logs the elements into a spreadsheet. This data is then uploaded and saved into Bank's commercial loan system e.g. LoanIQ. Hence, A need to automate the classification and data extraction of such documents exists.

Magic's proposed solution:

Magic proposed DeepSight platform leveraging its combination of different pipelines and accelerator units:-

Input Pipeline :- Magic DeepSight's interoperability allows it to integrate it with any input source. Integrate directly with an email box or a secured folder location and execute processing in batches.

OCR Pipeline :- Images or Image based documents are first corrected and enhanced before feeding them to an OCR system. This is done to get the best output from an OCR system. DeepSight can integrate with any commercial or publicly available OCRs.

Pre Processing Pipeline :- Pre Processing involves data massaging using several different techniques like cleaning, sentence tokenisation, lemmitization etc. to feed the data as required by optimally selected AI models.

Extraction Pipeline :- DeepSight's accelerator units accurately recognize the layout, region of interest and context inorder to autoclassify the documents and extract the information embedded in tables, sentences or key value pairs.

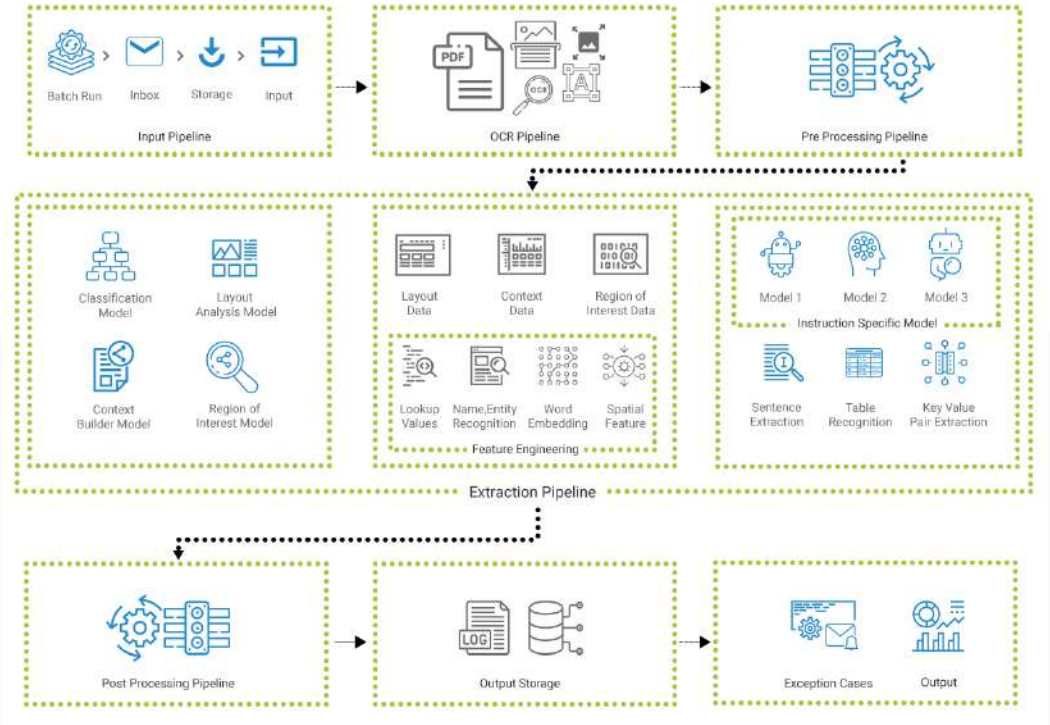
Post Processing Pipeline :- Post Processing pipeline applies all the reverse lookup mappings, business rules etc. to further fine tune the accuracy.

Output Storage :- Any third-party or in-house downstream or data warehouse system can be integrated to enable straight through processing.

Output :- Output format can be provided according to specific needs. DeepSight provides data in excel, delimited, PDF, JSON or any other commonly used format. Data can also be made available through APIs. Any exception or notifications can be routed through emails as well.

Trade Operations Workflow

Loan Operations Automation



Technology Components for Trade Operations Use Case

Technology Component	Why is it required?	Business Benefits
Multi-level Hierarchy	Eliminate false positives and negatives since payment instructions could comprise of varying CDEs	<ul style="list-style-type: none">■ Improve precision on Critical Data Elements (CDEs) such as Amounts, Rates and Dates etc.■ Contain false positives and negatives to reduce the manual intervention
Taxonomy	Specific business taxonomy may some time counteract on precision.Hence,it becomes important to train on taxonomy	<ul style="list-style-type: none">■ Improve precision and context specific data extraction and classification mechanism■ Accuracy of data elements which refer to multiple CDEs will improve. For e.g. Transaction Type, Dates and Amounts
Human-Eye-Parser	Documents that contain multiple pages and lengthy preambles require a delimitation of tabular vs. free flow text	<ul style="list-style-type: none">■ Extraction of tabular data, formulas, instructions with multiple transaction types all require this component for seamless pre and post processing
Validation & Normalization	Reduce the manual intervention for the exception queue	<ul style="list-style-type: none">■ An extensive business rule engine that leverages existing LoanIQ data will significantly reduce manual effort and create an effective feedback loop for continuous learning.
Validation & Normalization	Image processing of vintage contracts and low image quality (i.e. vintage ISDAs)	<ul style="list-style-type: none">■ Optimize time, cost and effort with the correct OCR solution that delivers maximum accuracy.

Use Case #3 - Invoice Management/ Accounts Payable (AP) Automation

If your current invoice process is still highly manual and complex despite implementing expensive platforms such as Coupa or Concur. If your invoice processing and allocation is time consuming and has gaps leading to valuation errors and revenue leakage, then DeepSight from Magic FinServ is the solution for you.

The complexity is driven by:

High volume of invoices

High processing time due to complex business rules for correct mappings, for related charges and for tax withholding

Magic's proposed solution:

An AI-driven tool for Straight Through Processing of vendor invoices. The tool has the ability to:-

Parse diverse formats - Any invoice format whether it is an Image, PDF, Excel etc can be parsed.

Classify invoices - Invoices that need to be allocated, vendors whose invoices need tax withholding, etc can be identified.

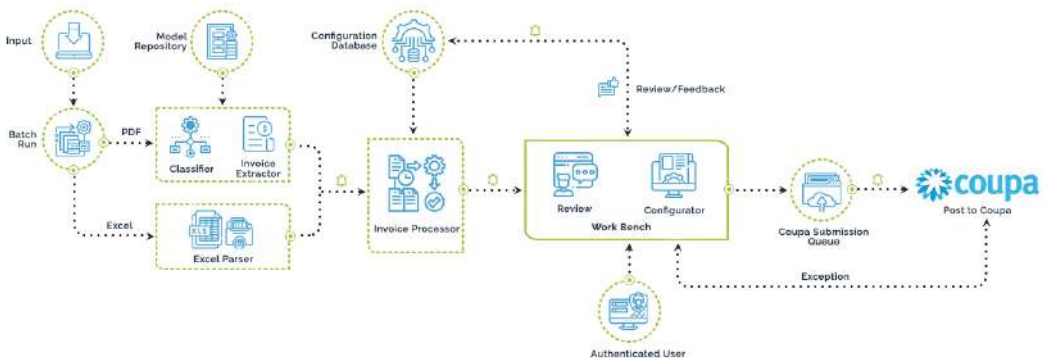
Extract information - Performs intelligent information extraction from different vendor invoices with various templates.

RPA based enrichment of data as well as RPA enabled workflow for approvals and authorizations.

API based data ingestion in Core platform such as Coupa, Concur.

Self-learn - Based on a user's action and feedback, the tool understands the complex business mappings to assist autopopulation of data.

Invoice Management Process



Use Case #4 – Extracting relevant Data and clauses from Agreements

Buy Side firms have to manage agreements that govern relationships with Service Providers and Credit Agreements with Counter Parties. Over the life of the contract, there are several amendments and addendums to these documents. Understanding and Managing these agreements require highly trained analysts, this limits the number of deals and is often prone to errors and omissions.

Magic's proposed solution:

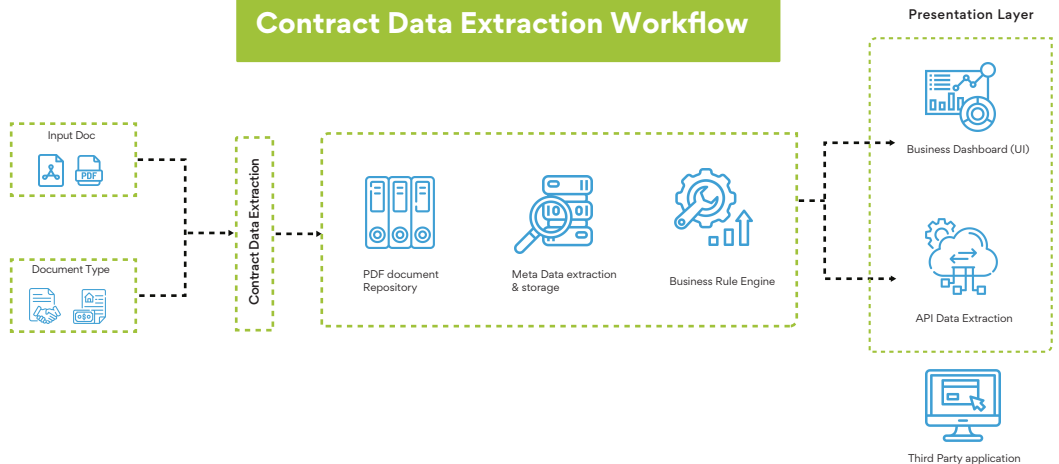
Magic's DeepSight document processing tool alongwith our Advisory practice provides a configured solution that acts as a virtual assistant to the analyst thereby reducing the complexity of the task. Automates standard processes to reduce errors and omissions.

Process Diverse Documents:- Service Provider Agreements vary by type of service, each service provider has its own unique terms and conditions. These documents have to be categorized according to type of service and for each service provider, relevant content identified and extracted.

Maintain unique folders :- Solution not only identifies and segregates different documents but also files all documents for a particular service provider in the same folder to enable ease of access and retrieval.

Configurable Data extraction :- Solution converts documents to a Metadata Based state to enable flexible configuration and thereafter tagging and extraction of relevant data. Content extracted can be Key Value Pairs, Tables or free flow content such as Covenant clauses. Solution looks for relevant and similar content across all the documents in the particular relationship and displays them in a single window to ease readability and analysis.

Contract Data Extraction Workflow



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