

H2O.ai

H2O 
DOCUMENT
AI

Product Brief

H2O Document AI is an AI/ML powered intelligent document processing solution that can learn, identify and extract information from a variety of documents and images. The automated solution is designed for accuracy and scale to meet the business demands of timely information extraction by avoiding delays in manual entry. Businesses can now respond quickly to customers, increasing customer satisfaction, saving operational costs, and increasing top-line revenue.



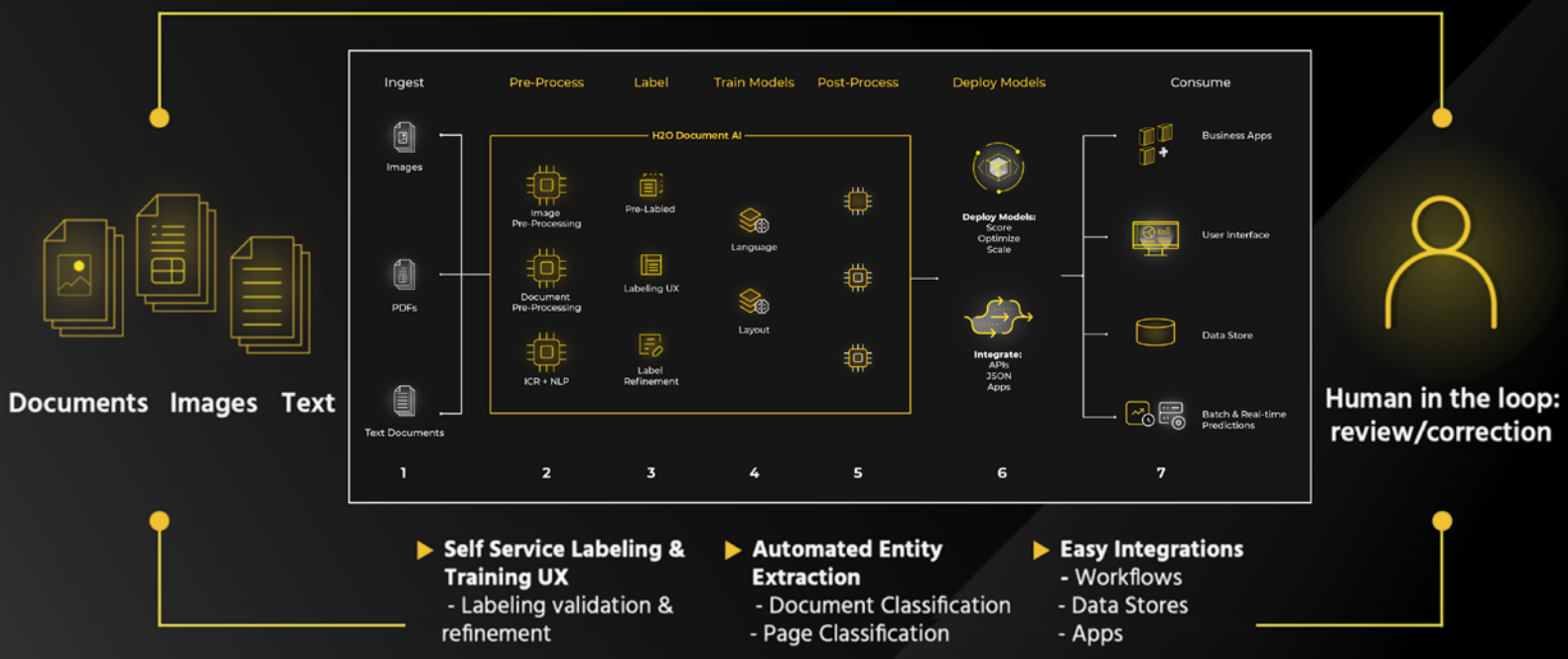
Here are some types of documents that the solution can process:

Bank statements, pay slips, purchase orders, invoices, identification documents (driver licenses, passports), utility bills, contracts (legal, regulatory, etc.), airway bills, referral forms, etc.

Key features of H2O Document AI

AI/ML powered ICR

H2O Document AI uses advanced intelligent character recognition (ICR) technologies to extract data from your documents accurately. ICR combines OCR (optical character recognition) and NLP (natural language processing). Because of this, it can extract data from any document regardless of layout or source, including PDFs, scanned images, and faxes. H2O provides access to a diverse set of OCR libraries and Kaggle Grandmaster fine-tuned OCR models to maximize information extraction from difficult-to-read documents & images such as blurry or multi-colored photos or documents that include handwriting.



AI/ML powered document & page classification

After the internal ICR step, H2O Document AI can classify pages in the documents based on their content, making it easier to route them to other entity extraction tasks or to the appropriate team members. The H2O Document AI/ML models are general enough to make excellent decisions as part of the classification step—even if it is a new document layout it has not been trained on. This starkly contrasts traditional solutions that use a rigid rules-based framework to memorize templates, which will fail when it sees a new document layout.

AI/ML powered entity/table/phrase extraction

The solution uses Layout and NLP models in the product, allowing it to hone in on the various fields on the document, such as invoice numbers, name, date, dollar amount, description fields, etc. This includes table rows and columns, and key phrases, even if the documents have different layouts.

H2O Document AI VIEWER

22856178-Payslip.pdf

Pipeline: kg-ps-gnr-2
 Status: Processed
 Processed at: 4/11/2023, 2:56:22 PM
 Last exported: not exported yet

Results: 4 Export

employee_name: SUDHEER J
 gross_pay: 18210
 net_pay: 18000

GLOBAL CORPORATION

BEHIND: ANDHRA BANK, S. R. NAGAR - 500038, HYDERABAD. OFF PH: 2301164 CELLPH: 9963133166

Payslip for the month of October 2009

| | | | |
|---------------|-------------------------------|-------------------|------------|
| EMPLOYEE NAME | SUDHEER J | PAN NO | AICPJ94768 |
| DESIGNATION | AREA SALES MANAGER | OPENING LEAVE BAL | 0 |
| DOJ | 15/04/2009 | LEAVE AVAILED | 0 |
| DEPARTMENT | SALES & MANAGEMENT | CLOSING LEAVE BAL | 0 |
| LOCATION | AMEERPET,BEGUMPET, GREENLANDS | LOP DAYS | 0 |
| GRADE | A | BANK NAME | N/A |
| PF ACC NO | N/A | ACCOUNT NO | CASH |

| EARNING | ACTUAL | ARREARS | EARNED | DEDUCTION | AMOUNT |
|----------------------|--------------|---------|--------------|------------------------|------------|
| BASIC | 8610 | | 8610 | PROFESSIONAL TAX | 100 |
| HRA | 3500 | | 3500 | ESIC | 110 |
| CONVEYANCE | 2500 | | 2500 | PF | 0 |
| CCA | 150 | | 150 | IT | 0 |
| SPL ALLOWANCE | 1800 | | 1800 | SAL ADV | 0 |
| TA | 1650 | | 1650 | LOAN | 0 |
| GROSS EARNING | 18210 | | 18210 | GROSS DEDUCTION | 210 |
| NET PAY | | | 18000 | | |

THIS IS COMPUTER GENERATED PAYSIP AND NEEDS NO SIGNATURE.

PRINT

Self-service labeling with pre-trained model tuning

H2O Document AI uses pre-trained AI/ML models trained on millions of documents with different layouts, terms, and context. The UI allows a business user to annotate a sample of documents in an annotations editor. A data scientist can build and tune pre-trained models quickly with a sample of documents. Model feedback highlights potential focus areas, allowing for investigation and rapid iteration. The data scientist can then push a button and deploy it for consumption.

Publishing a pipeline, scaling to meet demand & meeting SLAs

The solution works with native cloud architectures and leverages the cloud's elastic scaling capabilities, whether it is AWS, Azure, or GCP platform. It can also work on-prem. H2O Document AI leverages this, as the platform is fully cloud enabled. Businesses can extract information from millions of documents easily within a desired time frame, keeping the low extraction time per page. The OPEX cost really becomes a function of the SLA for a use case and demand expected. The extraction output from Document AI is the industry-standard JSON format, which works really well with any application consuming it.

Deployment stories with H2O customers:

The Center for Digital Health Innovation (CDHI) at the University of California, San Francisco (UCSF) gets 14 million faxes per year. Each of these documents had to be handled multiple times by humans to determine what kind of document it is, which patient it pertains to, and what must be done to further process or respond to the document's contents. UCSF initially experimented with optical character recognition (OCR) and robotic process automation (RPA) solutions. However, these solutions weren't flexible enough for full automation.

They picked H2O Document AI for production because of its flexibility in handling various document templates and information layouts. UCSF and H2O.ai recently won the AI Journal award for this implementation.

[Read the article on Business Wire »](#)

Commonwealth Bank of Australia solved their remediation use case by processing PDF documents and extracting key phrases that detected specific conditions. They were able to reach out and notify customers before the imposed deadline, to avoid regulatory fines. They are also currently deploying the KYC (Know Your Customer) for a financial product application use case, where customers send various documents that don't have a predictable template—like utility bills, payslips from their employers, etc.

Another healthcare customer uses H2O Document AI to extract critical information from purchase invoices in different formats. It is currently used to extract and integrate information with their supply chain system.

Summary of key benefits with H2O Document AI



Don't settle for mediocre accuracy

H2O Document AI uses advanced ICR technology that has proven to extract data accurately from documents, minimizing redos and getting data quickly for business operations.



Boost your revenue and customer happiness

By automating document processing tasks with H2O Document AI, businesses can realize huge ROI by lowering the costs for both implementation and ongoing OPEX costs, while continuing to increase customer satisfaction and top-line revenue.



Rev up your team's productivity

Businesses can quickly expand into complex use cases, reducing manual data entry and errors so teams can focus on higher-value tasks.

Request a demo of
Document AI

[Request Demo](#)



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