Datax
AI Solutions

Gateway to the most advanced AI technologies,
as commercial solutions to Hong Kong enterprises.

datax.io

At a Glance

Founded in 2017 >

- HK-based team of 25+ AI Specialists.
- Delivered 40+ solutions for HK enterprises.

Key expertise >

- OCR (Optical Character Recognition)
- ASR (Automatic Speech Recognition)
- Gen AI (Generative AI) &
  LLM (Large-language Model) integration

// Recognized Clients in Hong Kong

地政總署 Lands Department
香港特別行政區政府 消防處
香港特別行政區政府 康樂及文化事務署
香港特別行政區政府 食物環境衞生署
香港特別行政區政府 渠務署
機電工程署 EMSD
醫院管理局 HOSPITAL AUTHORITY
香港房屋委員會 Hong Kong Housing Authority
啟勝管理服務有限公司 KAI SHING MANAGEMENT SERVICES LIMITED 新鴻基地產成員 A member of Sun Hung Kai Properties
TransUnion 環聯
standard chartered
HKSTP
NEC
AECOM
KMB since 1933
衞生署 Department of Health
香港特別行政區政府 律政司

Why Datax

Our unique advantages

Advanced Technology

- Professional AI specialists researching **ever-evolving AI technologies**, especially **LLMs**.
- Comprehensive knowledge in applying AI into **commercial** situations.

Proven Track Record

- **40+** successful implementations across government and enterprise clients in Hong Kong.
- Delivered high quality cloud, on-premise, customized and SaaS solutions.

Local Expertise

- AI models optimized for **Traditional Chinese** & **English** documents and languages.
- Deep understanding of local business practices and regulatory environments.

OCR & Document Solutions

Advanced OCR and Document Extraction,

for Hong Kong Enterprise.

OCR & Document Solutions

Industry-leading OCR & Document Extraction Solutions for Hong Kong Enterprise. Handwritten or typed, fixed or unstructured.

Capabilities

Industry-leading accuracy >

- Traditional & Simplified Chinese, English
- Supports both typed (**95%+**) & handwritten text (**85%+**)
- Processes forms, invoices, receipts, bank statements, contracts etc.
- Flexible integration: API, database, or standalone system, cloud or on-prem.

Values

Vast automation >

- Reduce manual data entry by 90%
- Process tons of documents in minutes
- Minimize human error
- Accelerate downstream processes
- Improve data quality and accessibility

Typical OCR & Document Extraction Solution Flow

01

Document ingestion

// Image pre-processing

02

Text recognition with OCR

// Document classification

03

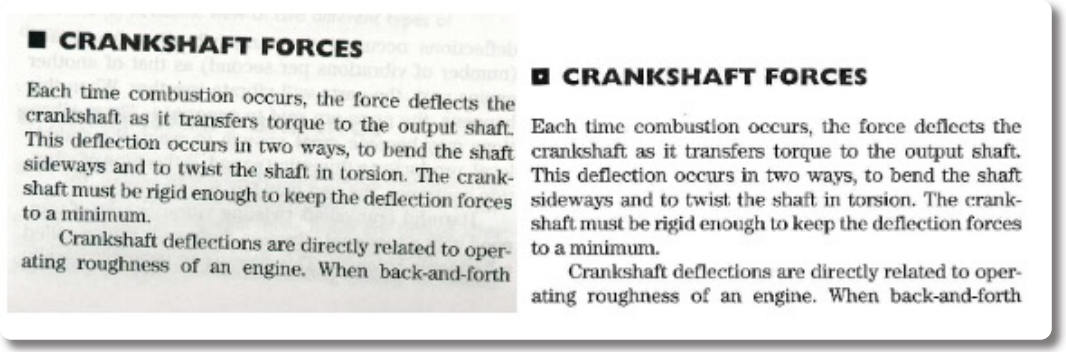
Key Information Extraction with LLM

// Data mapping

01 – Document ingestion

Preprocessing to adjust >

- Contrast
- Orientation adjustment
- Deskewing



■ CRANKSHAFT FORCES

Each time combustion occurs, the force deflects the crankshaft as it transfers torque to the output shaft. This deflection occurs in two ways, to bend the shaft sideways and to twist the shaft in torsion. The crankshaft must be rigid enough to keep the deflection forces to a minimum.

Crankshaft deflections are directly related to operating roughness of an engine. When back-and-forth

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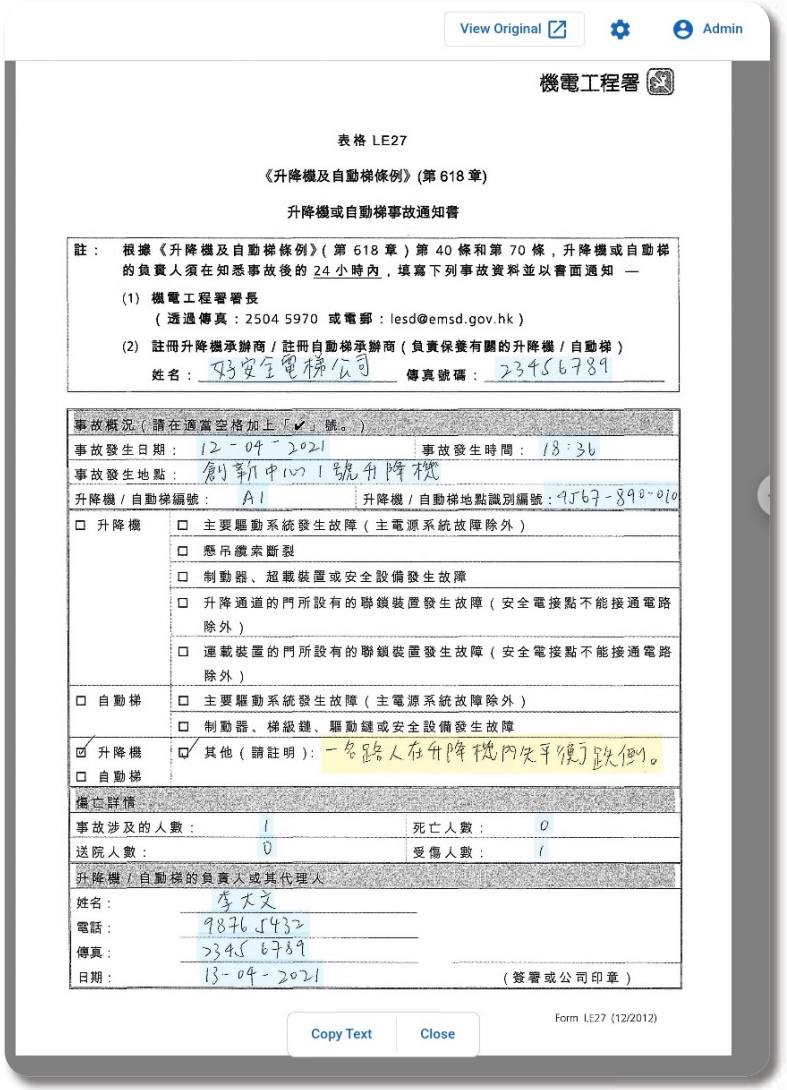
Sample of document preprocessing (before & after)

Multiple document ingestion approaches >

- PDF/image upload
- Auto import from:
    - Standard network protocol e.g. **FTP** (File Transfer Protocol)
    - **API** (Application Programming Interface)
    - **Email** attachments

02 – OCR Text recognition

- **OCR trained with: >10 million hand-writing** data in Traditional Chinese, Simplified Chinese & English.
- **Specially fine-tuned for: Hong Kong-specific** documents and contents, including Addresses, Date, Time and numbers.
- **Handles multiple data presentations:** **Text**, **checkboxes**, selection with **circles** or **strikethroughs**
- Perform automatic **document classification** from a large batch of scanned files



Sample OCR text recognition of handwritings

On-premises OK!

03 - Intelligent Extraction with LLM

Ideal for all documents >

- Fixed
- Semi-structured
- Unstructured documents

Key benefits >

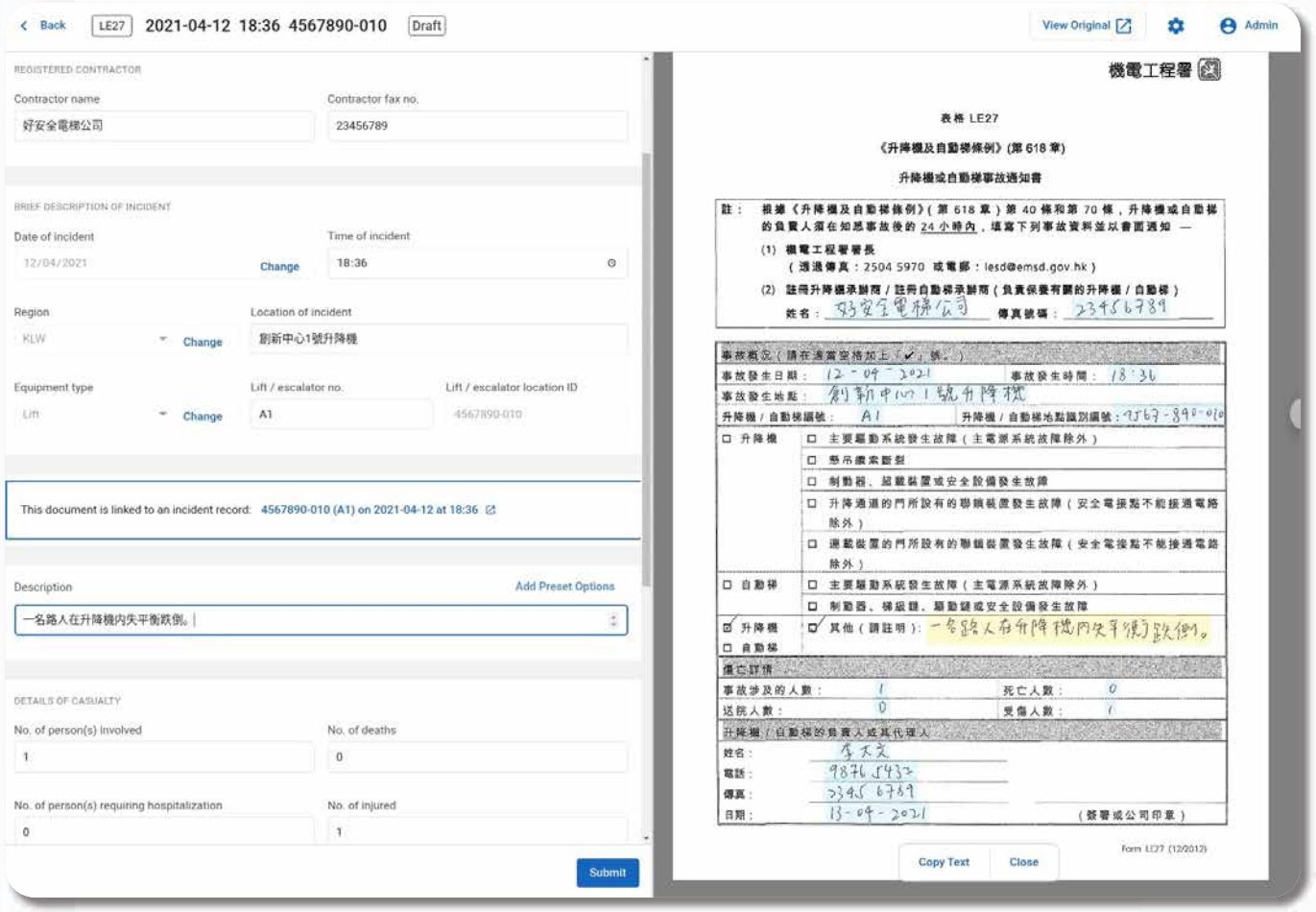
- **Highly adaptive**, minimal pre-training, robust to variations
- How it works: Uses LLMs to understand document context and extract information through intelligent prompting
- **One-stop, ever-improving** solution for all kinds of documents

Human-in-the-loop Validation UI

- **Intuitive interface for data vetting -**
  Side-by-side viewing platform for users' vetting on AI recognized context

- **Intelligent alerts to Guide Your Focus -**
  Provide alerts on low **confidence score** & **business logics violations**
  (e.g. check sum, the background and context)

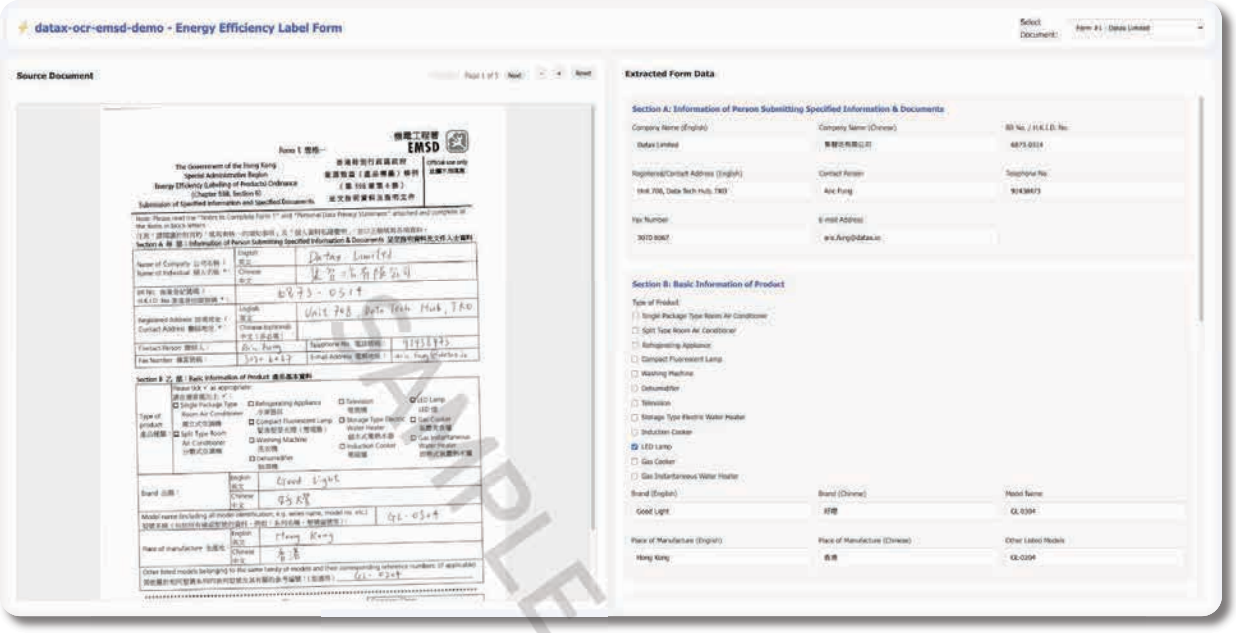
- **Guaranteed Auditability & Trust -**
  AI provides **citations** & **source of truth** for extra confidence in the data

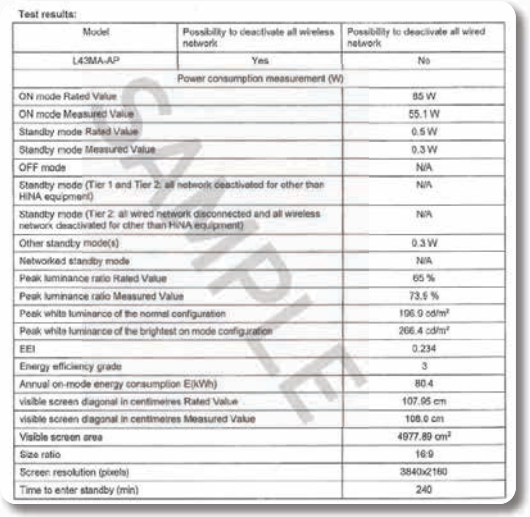


Sample OCR text result validation & input UI

OCR & Document Solution

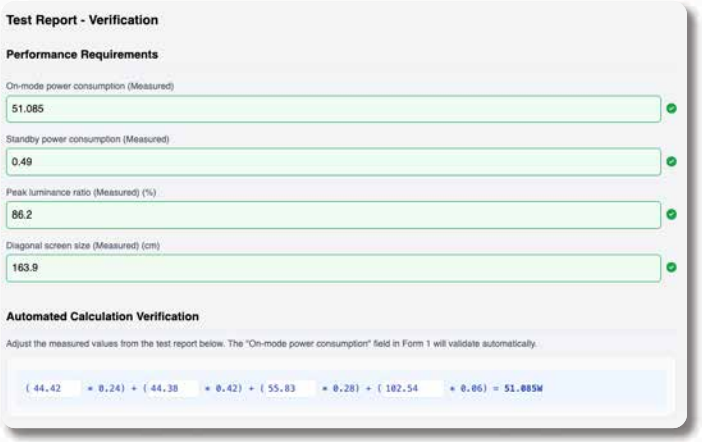
Success Stories





Test results:

Model	Possibility to deactivate all wireless network	Possibility to deactivate all wired network
L43MA-AP	Yes	No
Power consumption measurement (W)		
ON mode Rated Value		85 W
ON mode Measured Value		55.1 W
Standby mode Rated Value		0.5 W
Standby mode Measured Value		0.3 W
OFF mode		N/A
Standby mode (Tier 1 and Tier 2: all network deactivated for other than HINA equipment)		N/A
Standby mode (Tier 2: all wired network disconnected and all wireless network deactivated for other than HINA equipment)		N/A
Other standby mode(s)		0.3 W
Networked standby mode		N/A
Peak luminance ratio Rated Value		65 %
Peak luminance ratio Measured Value		73.5 %
Peak white luminance of the normal configuration		196.0 cd/m²
Peak white luminance of the brightest on mode configuration		266.4 cd/m²
EEI		0.234
Energy efficiency grade		3
Annual on-mode energy consumption E(kWh)		80.4
visible screen diagonal in centimetres Rated Value		107.95 cm
visible screen diagonal in centimetres Measured Value		108.0 cm
Visible screen area		4977.89 cm²
Size ratio		16:9
Screen resolution (pixels)		3840x2160
Time to enter standby (min)		240



Form Processing & Report Vetting

Processes over 1000 pages of paper documents per month, related to MEELS energy label application & performs AI data and calculation vetting on vendor submitted lab report.

// Customized OCR & VLM-powered extraction system

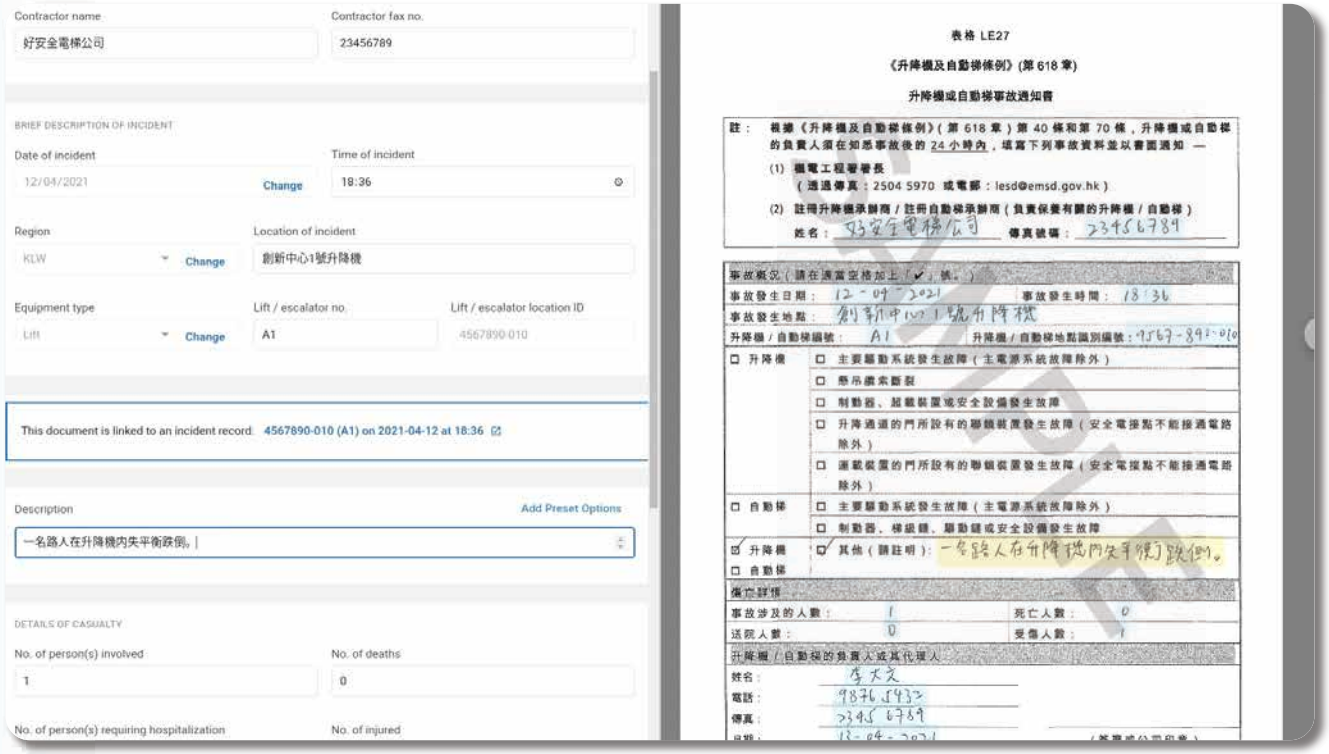
// AI-powered data integrity vetting function

Achievements >

- **90%+** extraction accuracy
- **95%+** vetting & flagging accuracy
- **80%** reduction in approval time

Incident Form Processing

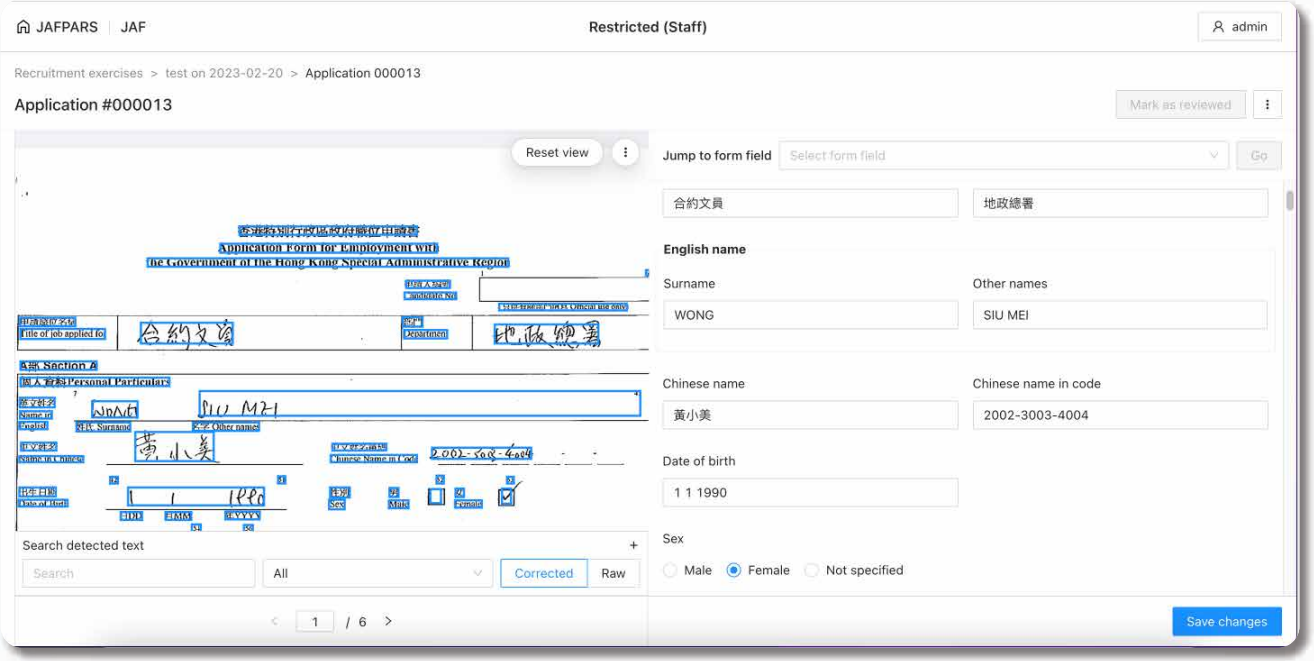
- **Challenge:** Digitizing paper-based application forms with mixed typed and handwritten content
- **Solution:** Custom OCR workflow with field validation & internal system integration
- **Results:** Processed hundreds of forms monthly, reduced data handling time from by 80%

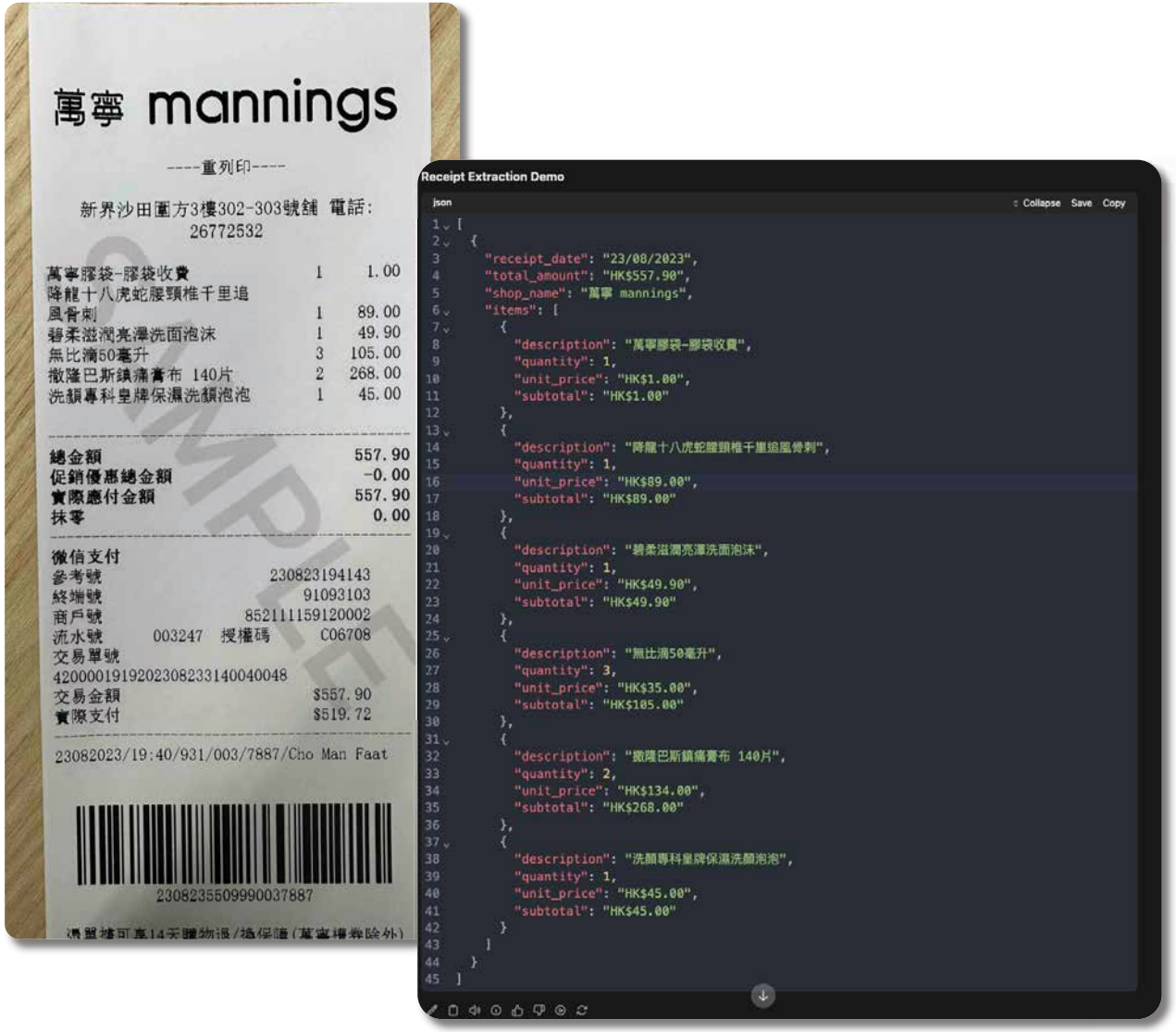


Appraisal & Job Form Processing

Implemented for multiple departments

- **Challenge:** Digitizing paper-based application forms with mixed typed and handwritten content
- **Solution:** Custom OCR for handwriting recognition with field validation
- **Results:** Processed hundreds of forms monthly, reduced data handling time from by 70%





Receipt Extraction

Processing 5000+ receipts monthly with varying formats and quality. Plug and play, minimal pre-training required.

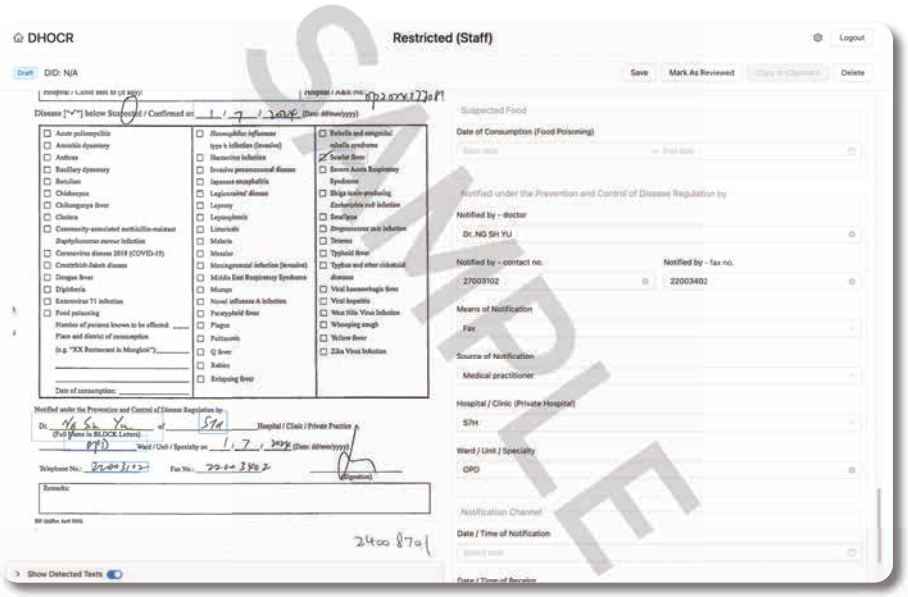
// VLM (Vision Language Model)-powered receipt extraction system

Achievements >

- 95%+ extraction accuracy
- 85% reduction in processing time

Disease Form Processing

- **Results:** Processed hundreds of handwritten forms monthly, reduced data handling time from by over 70%

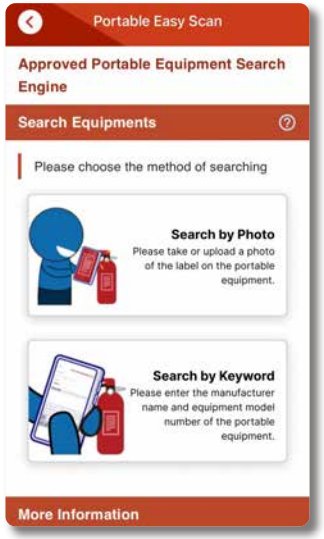


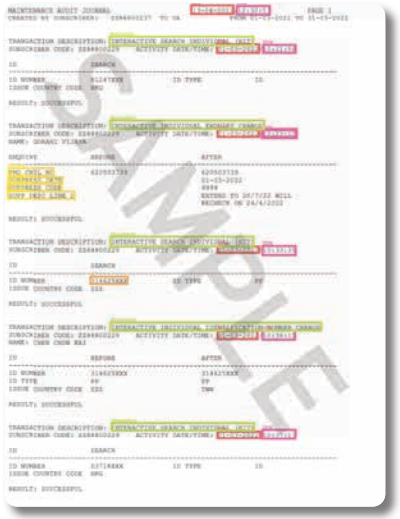
Fund Form Processing

- **Results:** Processed hundreds of forms monthly, reduced data handling time from by over 70%

Fire Equipment Search Engine

- **Results:** Launched an app allowing the public to search fire equipment by taking photos, by utilizing advanced AI text recognition from images.





Audit Log Record Processing

- **Results:** Vets over 10,000 pages of audit logs with handwritings per year automatically, saving over 90% of manual checking effort.

Contact Us

Our team of Hong Kong-based AI specialists is ready to discuss your specific challenges and demonstrate how our intelligent document processing and speech recognition solutions can drive efficiency and accuracy for your organization.

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Thank You