

## **Enhance Workplace Efficiency with**

Automatic speech recognition (ASR), Natural language Processing (NLP) and Optical Character Recognition (OCR)

# Company Profile

#### **Datax Al Solutions**

- A local tech-heavy company with 20 team members
- Specialized in delivering OCR, Speech-to-text, NLP & computer vision solutions
- Gained >30 gov & corporate clients in 4 years since establishing the AI solutions unit

### Some of our Clients with Commercially Launched Solutions







香港房屋委員會 **Hong Kong Housing Authority** 



地政總署 Lands Department













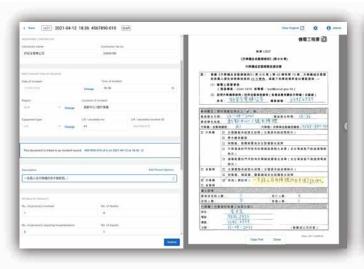


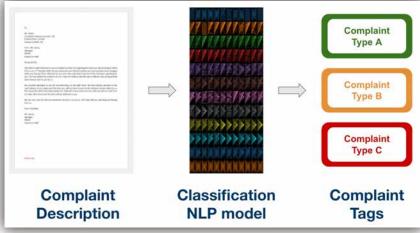


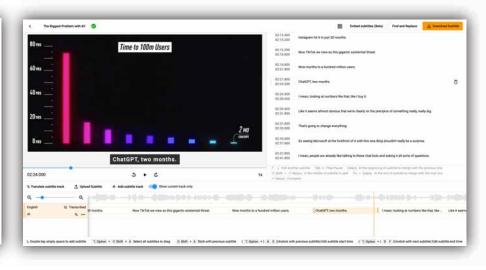


### **Datax AI Solutions**

#### Automation by NLP & OCR







Handwriting OCR & Document Extraction

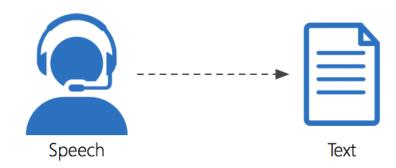
GPT and LLM based-NLP solutions Multiple Language Speech-to-text (ASR)

# Language Solutions

- Speech-to-text (ASR), subtitling
- **❖** Translation
- Classification
- Sentiment analysis
- Summarization
- Entity extraction
- GPT-related applications

## Datax Speech-to-text (ASR)

#### Audio transcription & video subtitling



#### Accurate & fast

- Superior transcription accuracy compared to similar software, with average below 5%-word error rate (95% accuracy)
- Process time short to 1/6 of audio length
- Capable to handle audio with significant background noise

#### 2. Versatile

- Supports 80+ common languages, including direct generation of Written Chinese or Verbal Chinese from Cantonese audio
- Customizable to fit business's daily workflows
- Seamless integration with downstream NLP solutions for multiplying business value generated (Enables subtitling, complaint classification, voice information tagging, call monitoring, meeting summarization etc.)

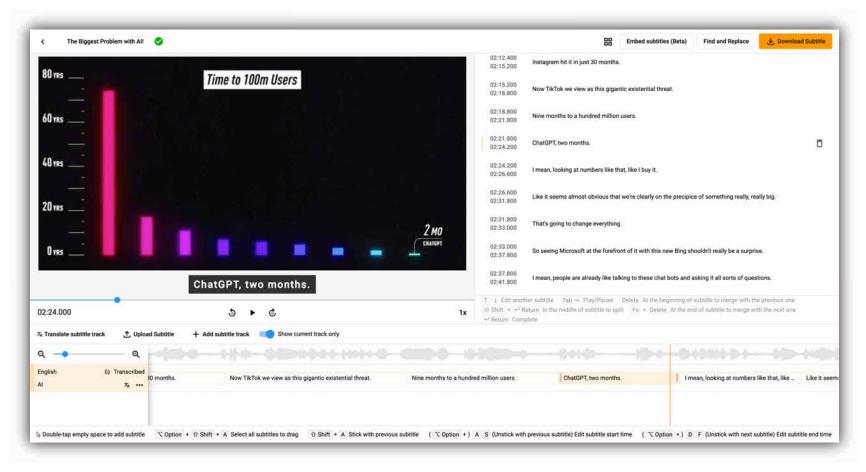
#### 3. Secure & reliable

- Support offline, on-premise implementation and usage
- Online version build on Google, Azure and Amazon cloud services with file encryption

# Subanana – Leading Cantonese Subtitling Platform

#### Audio transcription & video subtitling

- Launched for public access since 2021
- Trusted by 200+ YouTube channels, media groups & production companies
- Provide subtitle for avg.1000+ hours of video per month



https://subanana.com/plus/

# Subanana – Leading Cantonese Subtitling Platform

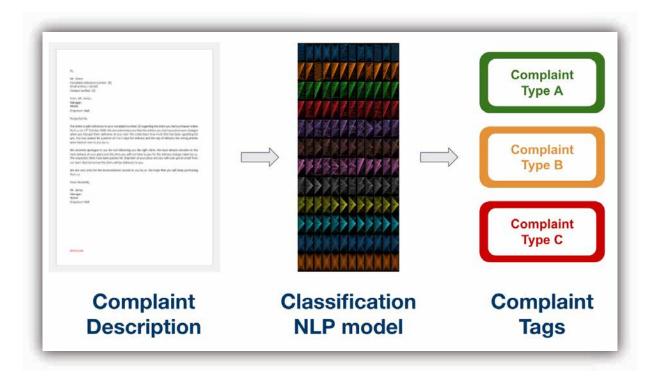
Audio transcription & video subtitling



# **Complaint Classification & Reporting**

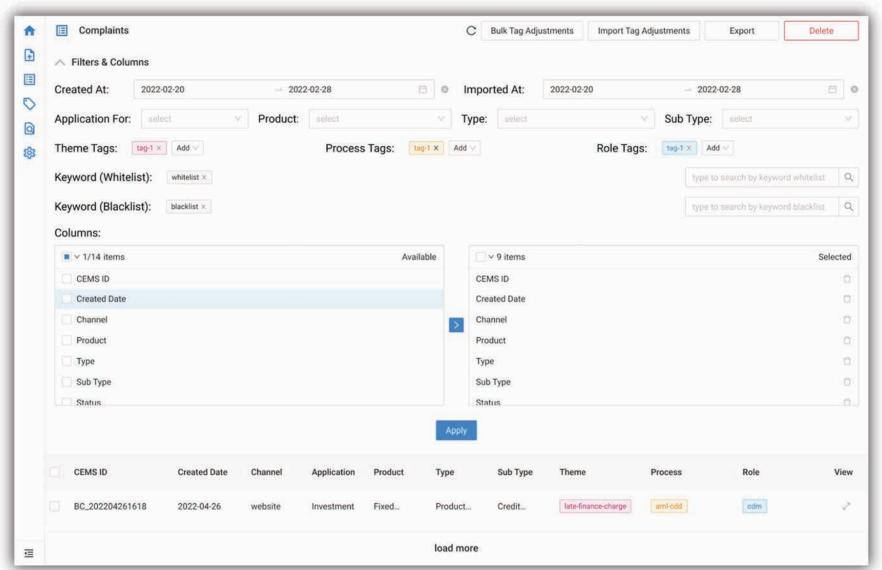
### Project Showcase - Serving commercial bank & public transportation company

- NLP AI models to read & understand customer enquiries, not only based on keywords
  - Language supported: Traditional & Simplified Chinese, English, & a mix of them
- The NLP system can assist staffs to:
  - 1. Identify the core problem by adding complaint tags
  - 2. Distribute complaint to different division in a bank
  - 3. Identify customer sentiment & urgency
  - 4. Suggest appropriate replies or solutions



# **Complaint Classification & Reporting**

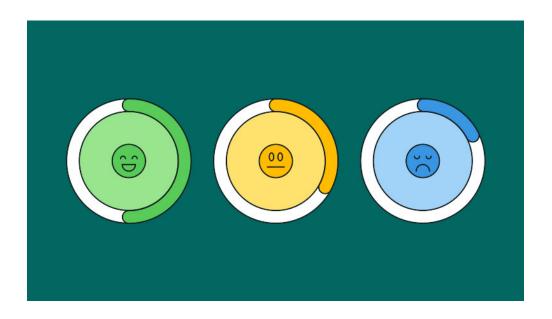
Project Showcase - Serving commercial bank & public transportation company



# **Sentiment Analysis**

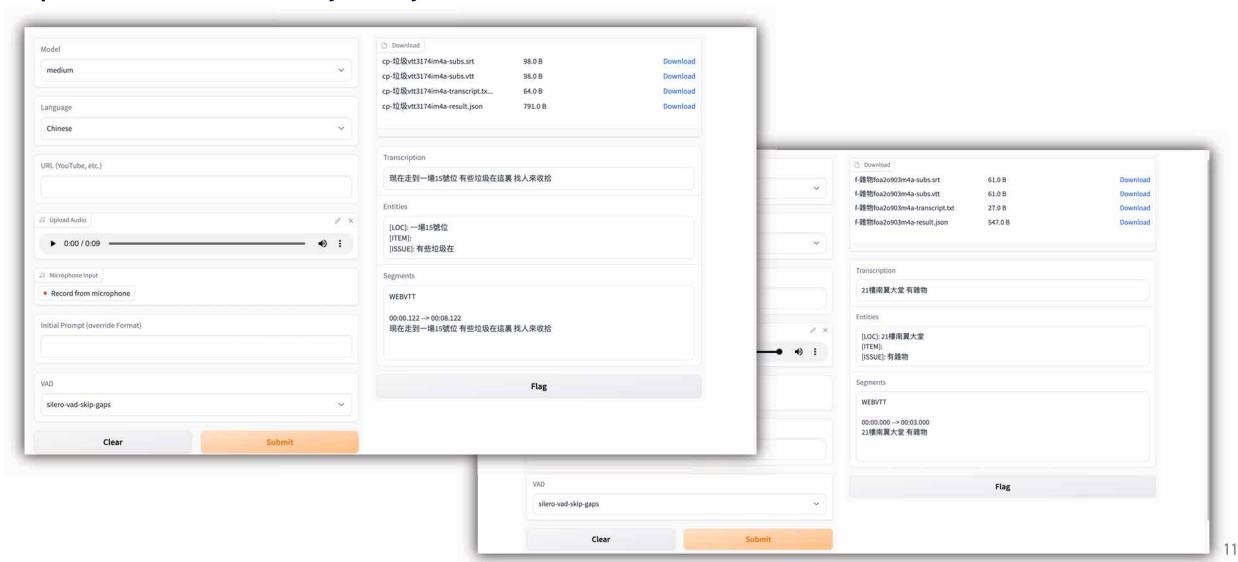
#### Project Showcase - Serving commercial bank & public transportation company

- NLP AI models to identify sentiment and give reason to its prediction
  - Positive, neutral, negative, mixed or scale-based analysis
  - Ability to breakdown the customer inquiry & provide sentiment analysis if 2 or more topics are mentioned



# Project Showcase - Housing patrol recording analysis

Speech-to-text with Key Entity Extraction



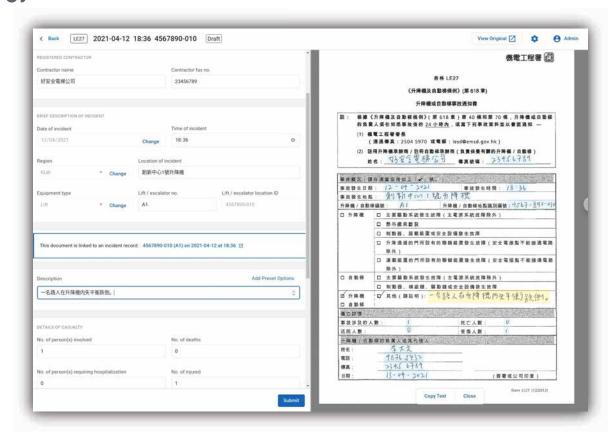
# **Document & Text Solutions**

- **❖** Al-OCR for hand-writings & typed text
- Structural document extraction (Forms)
- Semi-structured document extraction (Invoices, bank statements)
- Data redaction
- Image text recognition

### **Next-Gen OCR for Commercial Use**

#### Turn hand-written physical documents into digitized & structured data

- 1. Extract info from scanned docs with OCR technology
  - Handwriting & printed texts
  - Traditional & Simplified Chinese, English, Numbers
  - Structured & semi-structured documents
  - Best for Hong Kong corporates
- 2. Include document pre-processing
- 3. Provide flexible output approaches
  - Direct output as CSV file
  - ❖ API integration through JSON, XML file
  - System & database integration

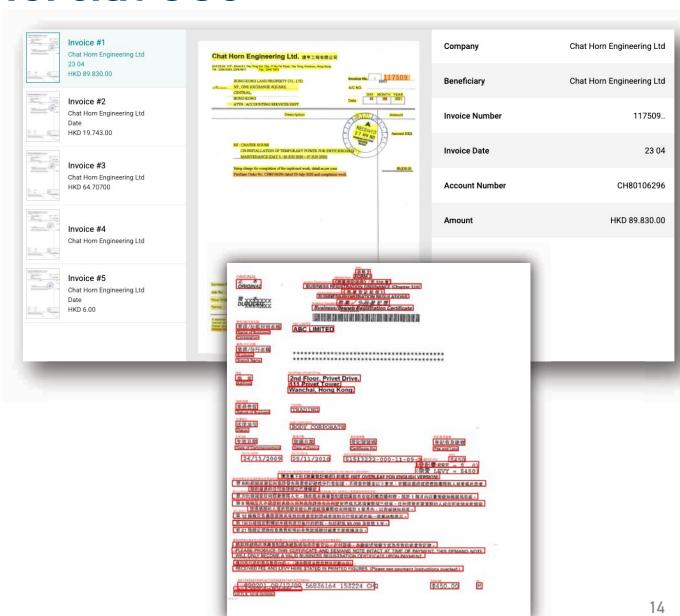


Sample OCR result validation & input UI

### **Next-Gen OCR for Commercial Use**

### Digitization for business documents

- Structured data extraction from scanned or captured documents, e.g.
  - 1. Business Registration (BR)
  - 2. Invoices
  - 3. Bank statements (various banks supported)
  - 4. ID cards, passports
  - 5. Receipts
  - 6. And more...

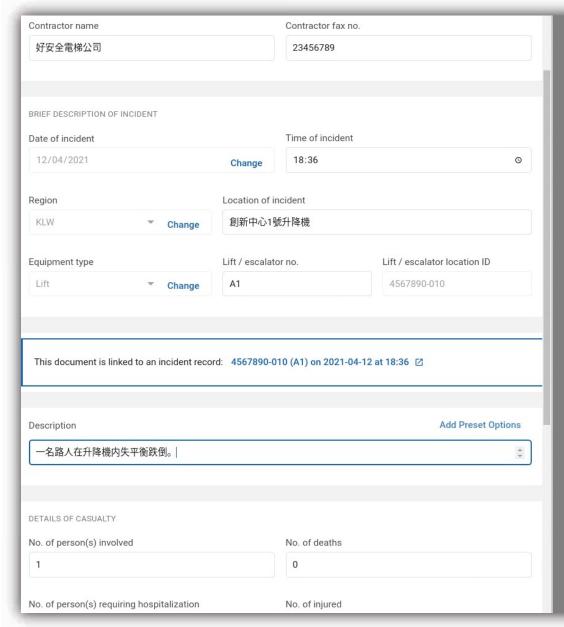


### **Next-Gen OCR for Commercial Use**

#### Competitive advantages of Datax OCR

- 1. Self-developed OCR models
  - **❖** Al trained with >10 million hand-writing data in Chinese & English, best for Hong Kong corporates.
  - Specifically fine-tuned for recognizing & extracting common data fields, incl.
    - Addresses
    - Date & time
    - Numbers
  - Can be deployed on premise, private cloud or public cloud
- 2. Highly accurate after AI training (Verified by official model testing in gov projects)
  - ♦ >85% for hand-written texts
  - **⋄** >95% for typed texts

# Project Showcase 1 – EMSD LERIS System



#### 表格 LE27

#### 《升降機及自動梯條例》(第618章)

#### 升降機或自動梯事故通知響

註: 根據《升降機及自動梯條例》(第 618 章)第 40 條和第 70 條,升降機或自動梯 的負費人須在知悉事故後的 24 小時內,填寫下列事故資料並以書面通知 —

(1) 機電工程署署長

(透過傳真: 2504 5970 或電郵: lesd@emsd.gov.hk)

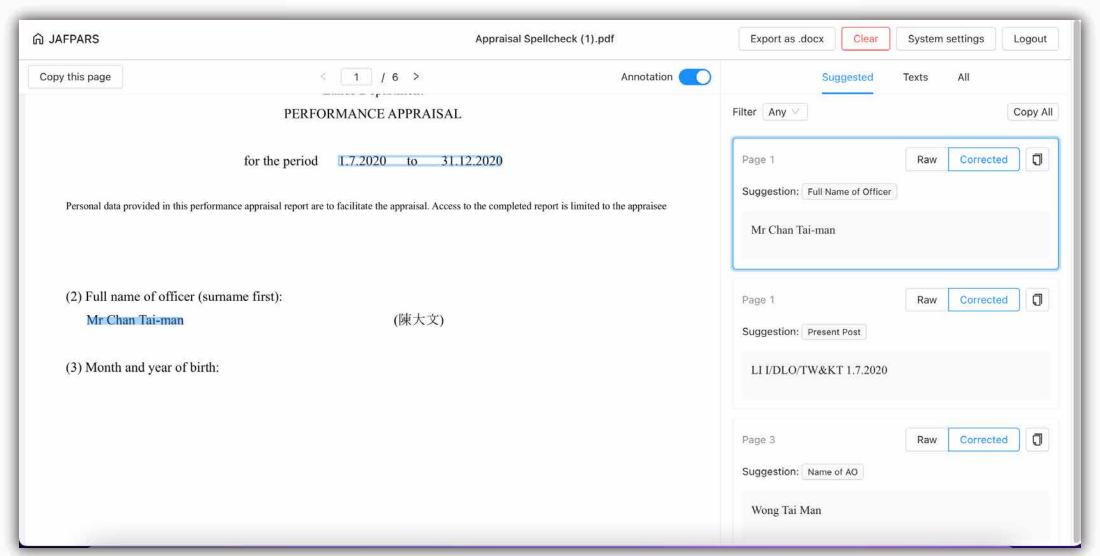
(2) 註冊升降機承辦商/註冊自動梯承辦商(負責保養有關的升降機/自動梯)

#名: 好安全電梯/公司 · @ 庫職碼

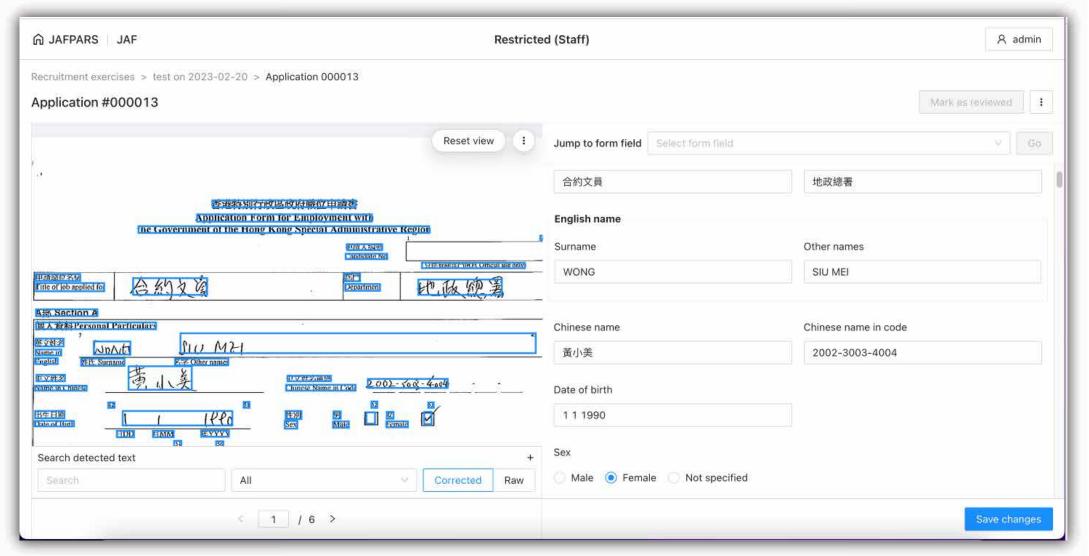
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		除外)
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□自動梯		主要驅動系統發生故障(主電源系統故障除外)
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姓名:	- SOL	李大文
電話:		9876 5432
傅真:	*****	>345 6789
日期・		13-04-707.1 (答要求公司和音)

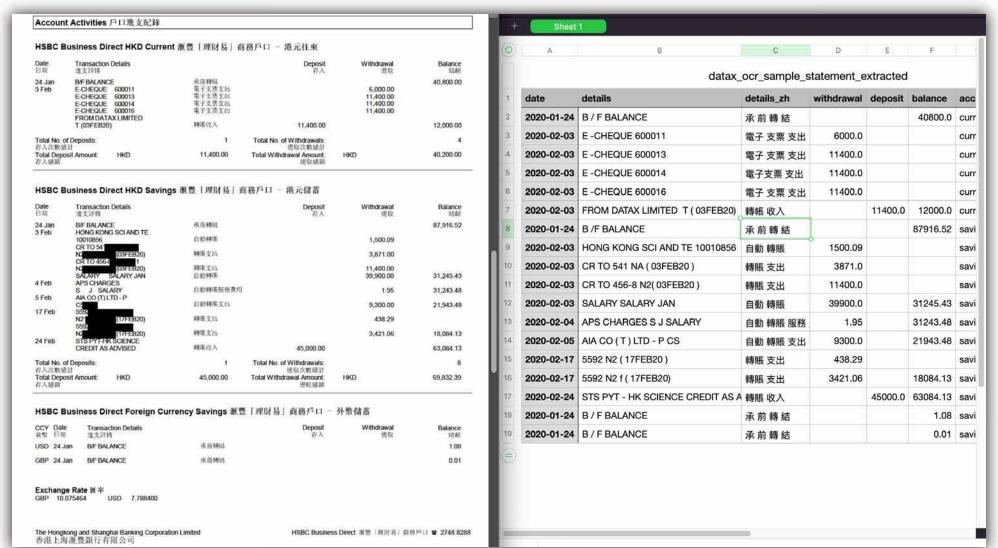
# Project Showcase 2 – LandsD Performance Appraisal Report OCR Tool



# Project Showcase 3 – LandsD Job Application Form (G.F.340) OCR System



# Project Showcase 4 – Bank Statement Extraction System



# Project Showcase 5 – FSD Port-E App

**Image Text Recognition** 

- Implement an app module for public to search for approved portable fire equipment
  - Allow users to capture their own portable fire equipment by camera
  - 2. Use OCR solutions to extract key info from the captured image
  - 3. Compare and classify the captured portable fire equipment with the approved database of FSD
  - 4. Display and rank most similar approved portable fire equipment for the public checking
  - Demo video:
    https://www.youtube.com/shorts/Dx6hbr\_A108



# Project Showcase 6 – Car License Recognition

- Locate and label the position of car license
- OCR included engine to extract the text and turn into digital format
- Integrate with corresponding data libraries to enhance extraction accuracy
- Demo Video:

https://www.youtube.com/watch?v=vjeG3nAN8co





