



Asia's Largest

AI & Cloud

Conference 2024

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Chennai Trade Center, Chennai





Unleash the Power of Azure AI with Microsoft Fabric: Extracting Insights from Docs & Images

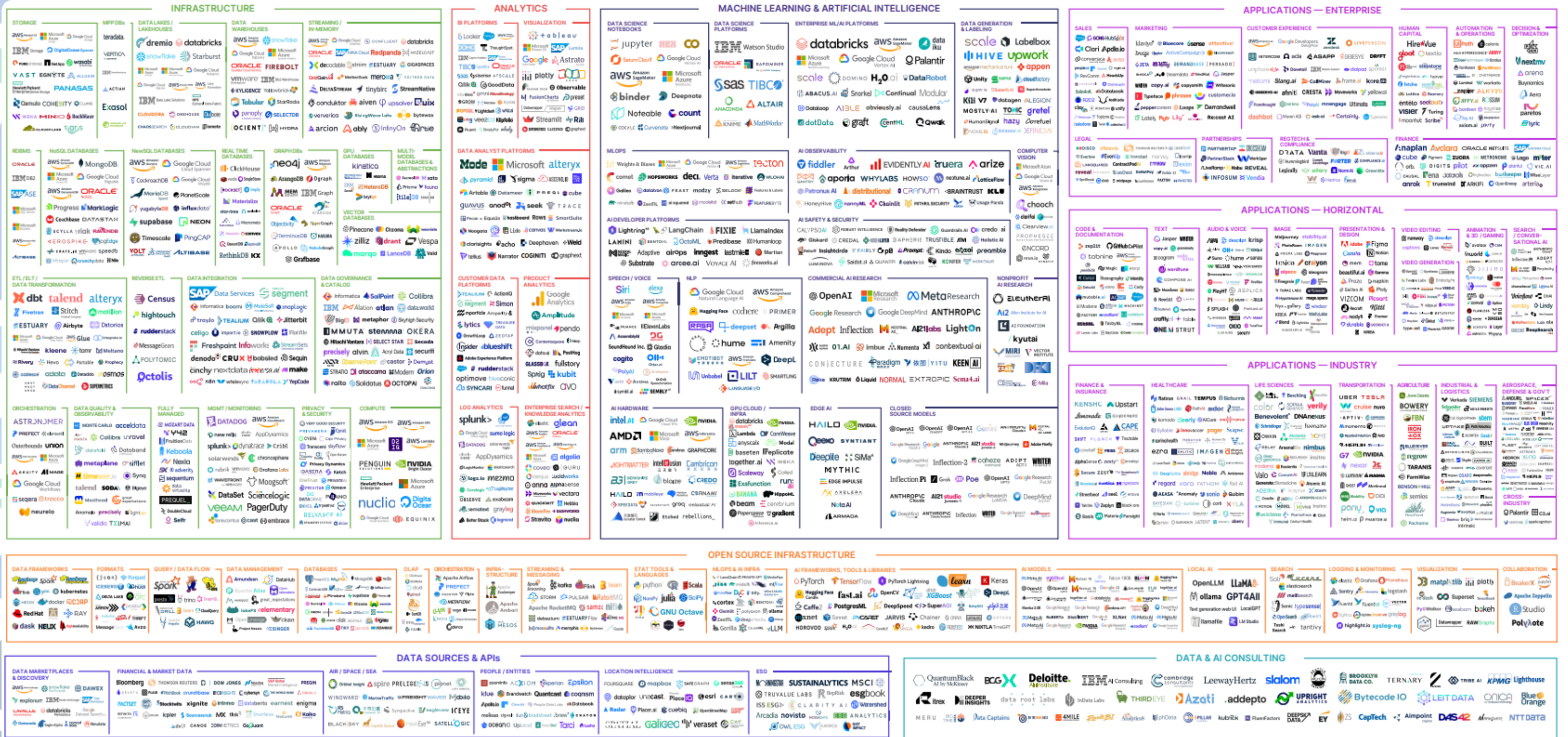


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- Cloud Data Architect, Presidio
- Microsoft Certified Trainer x4
- Microsoft Community Champion
- Microsoft Q&A top contributor
- Global Speaker
- Data Blogger → vinsdata.wordpress.com



2024 Data and AI Landscape

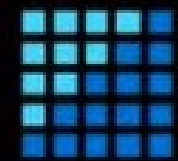


Document Process Automation Workflow

INGEST



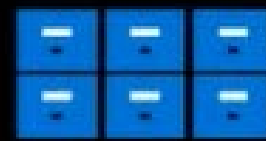
Document
Ingestion



Document
Digitization



EXTRACT



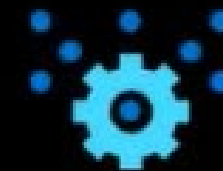
Document
Classification



Information
Extraction



ENRICH



Post
Processing



Action



Classification and Extraction Models

Pretrained Document Analysis

Read OCR

Layout analysis

Layout analysis with key-value pairs

PDF

JPG, PNG, BMP, TIFF, HEIF

DOCX, PPTX, XLSX, HTML

Pretrained Scenario Specific

Contracts

Invoices

Receipts

Identity documents

Health insurance cards

Credit/debit cards

Marriage certifications

US tax forms

US mortgage forms

PDF

JPG, PNG, BMP, TIFF, HEIF

Custom

Custom template extraction

Custom neural extraction

Composed custom extraction

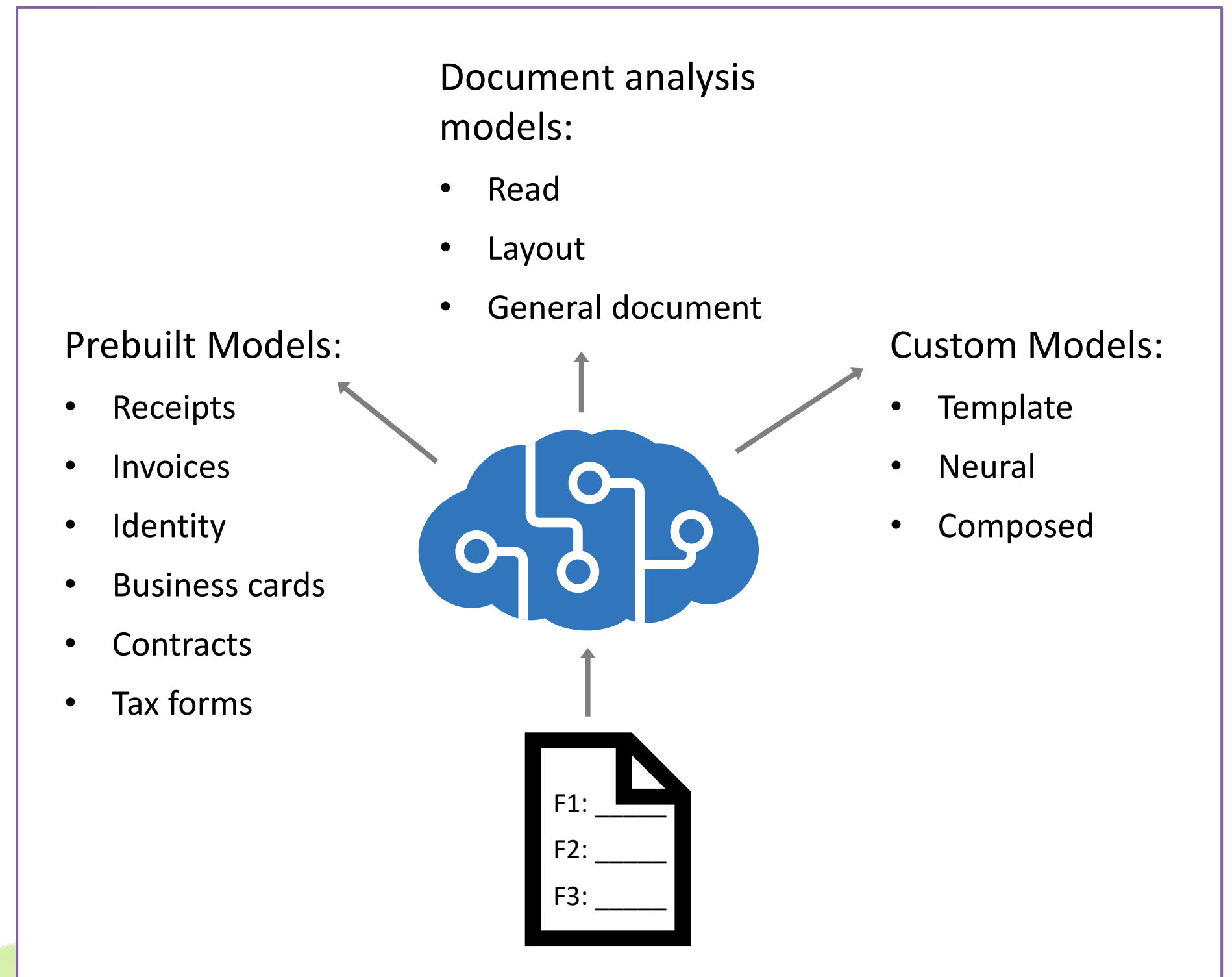
Custom classification

PDF

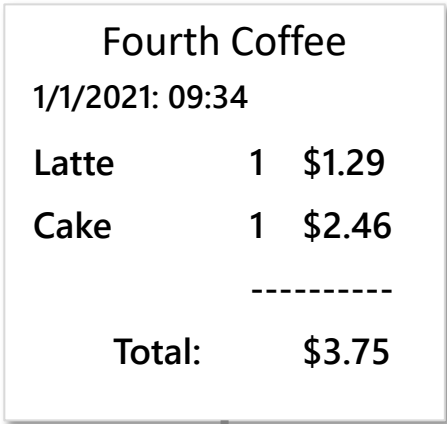
JPG, PNG, BMP, TIFF, HEIF

The Document Intelligence Service

- Data extraction from forms and documents
- Document analysis from general documents
 - Read: OCR for printed and written text
 - Layout: Extract text and structure
 - General document: Extract text, structure, and key-value pairs
- Prebuilt models for common form types
- Train custom models for your own forms
 - Custom template: Extract data from static layouts
 - Custom neural: Extract data from mixed-type documents
 - Custom composed: Collection of multiple models assigned to a single model
- Provision as single-service **Document Intelligence** resource or multi-service **Azure AI Services** resource



Receipt

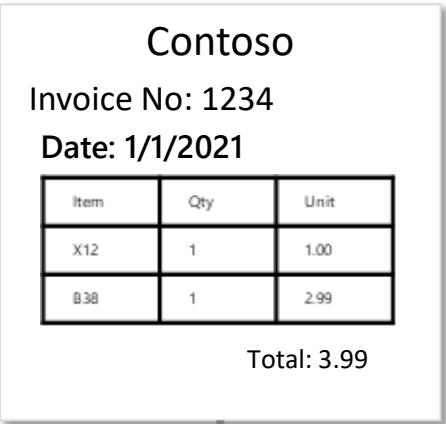


Analyze Receipt

Get Analyze Receipt Result

```
{
  "MerchantName": "Fourth Coffee",
  "TransactionDate": 2021-01-01,
  "TransactionTime": 09:34,
  "Items" [
    ...],
  "Total": 3.75
}
```

Invoice



Analyze Invoice

Get Analyze Invoice Result

```
{
  "VendorName": "Contoso",
  "InvoiceNumber": 1234,
  "InvoiceDate": 2021-01-01
  "Tables" [
    ...],
  "TotalInvoiceAmount": 3.99
}
```

Business Card



Analyze Business Card

Get Analyze Business Card Result

```
{
  "ContactNames": [
    {
      "FirstName": "Hank",
      "LastName": "Zoeng"
    }],
  ...
}
```




Demo



Calling Azure AI Services

In the main loop (above) we call a function **analyze_tax_us_w2**, which is a function we wrote to do the following:

- Call Azure AI Services using the key (from key vault), the file (in base64 string format), and the identifier of the document intelligence model we want the image processed with (prebuilt-tax.us.w2).
- Read the resulting JSON response payload.
- Extract the fields from the JSON payload that we targeted for saving in the Data Lake.



Q&A



THANK YOU!

Questions?



Let's Start!

