# **OCR Applications**







## Recent Projects: ShelterPoint (Insurance)

- OCR Utility for Shelterpoint Premium & Claim processing system
- Premium & Claim forms having handwritten digits, Checkboxes & Signatures
- Read some information from Barcode also
- 70,000+ documents already processed
- Processing 500+ documents on daily basis

- Python
- OpenCV
- TensorFlow Object Detection API
- Tesseract
- Pyzbar

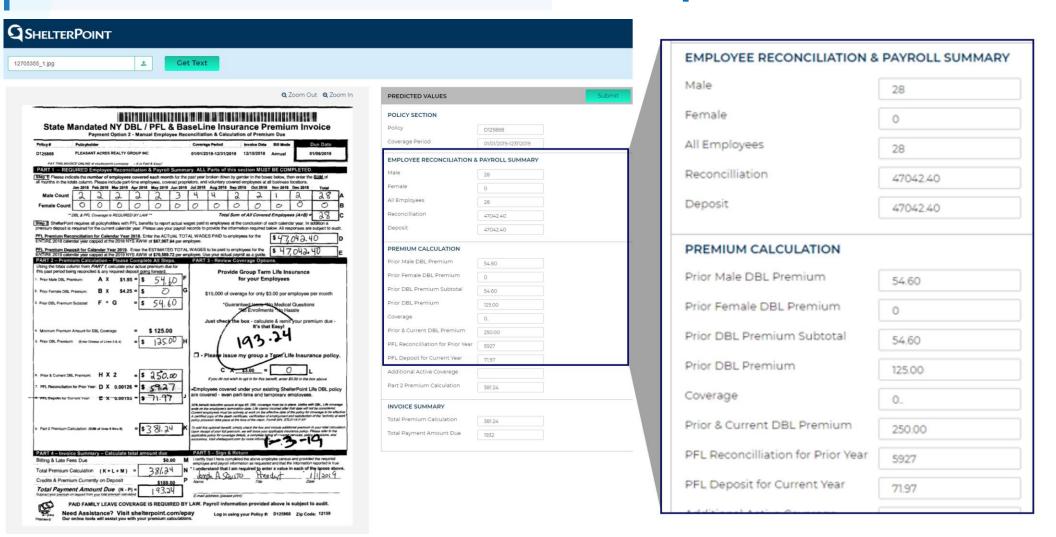








## ShelterPoint: **DBL Premium Form (Sample)**







# Recent Projects: ShelterPoint (Demo)

**Shelterpoint - OCR** 

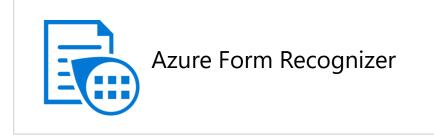




## Recent Projects: Allied Administrators

- OCR Utility for Delta Dental Enrollment and Claim Forms
- Support for both Handwritten and Digitally filled forms
- Ability to recognize if document has Signature or not
- Ability to pick selected Checkbox and values in both digitally and handwritten forms
- OCR Utility will be integrated with Allied backend system through APIs

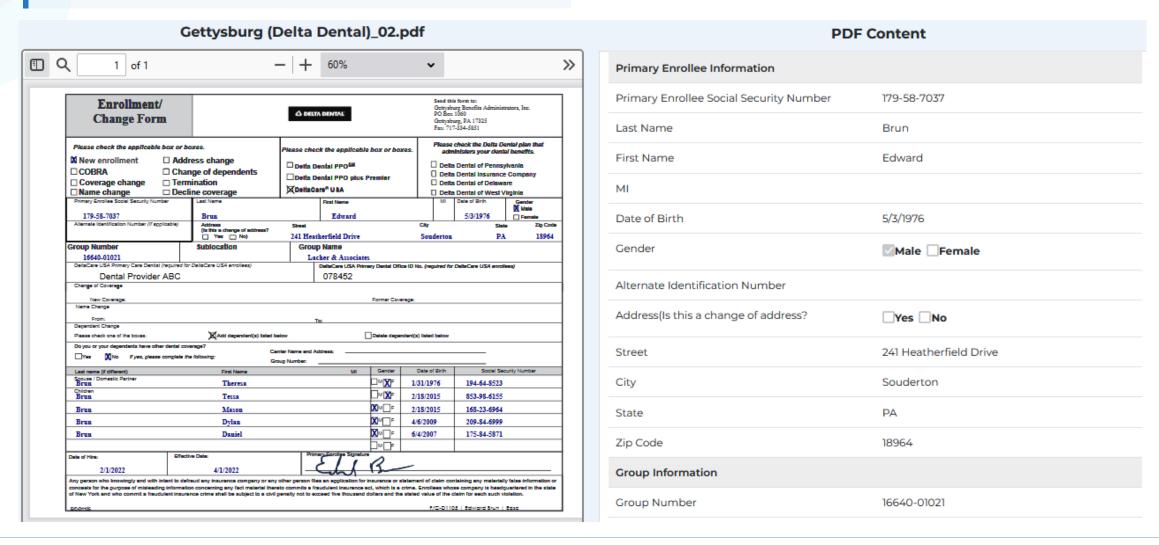
- .NET Class Library
- Azure Form Recognizer
- Python
- Azure AppService







# Recent Projects: Allied Administrators (Sample)



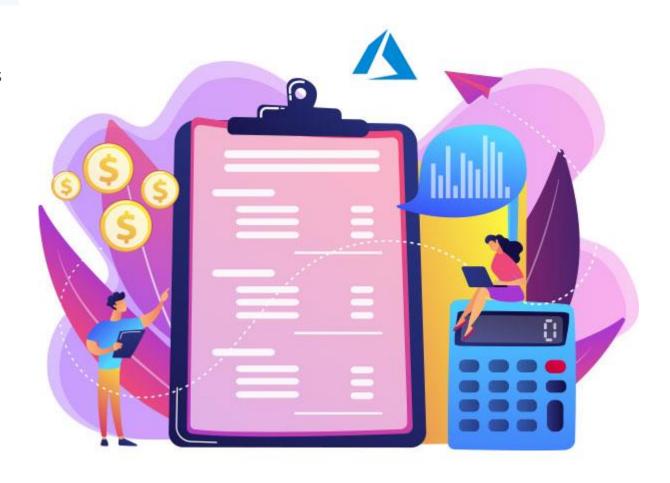




# Recent Projects: **SCANN**

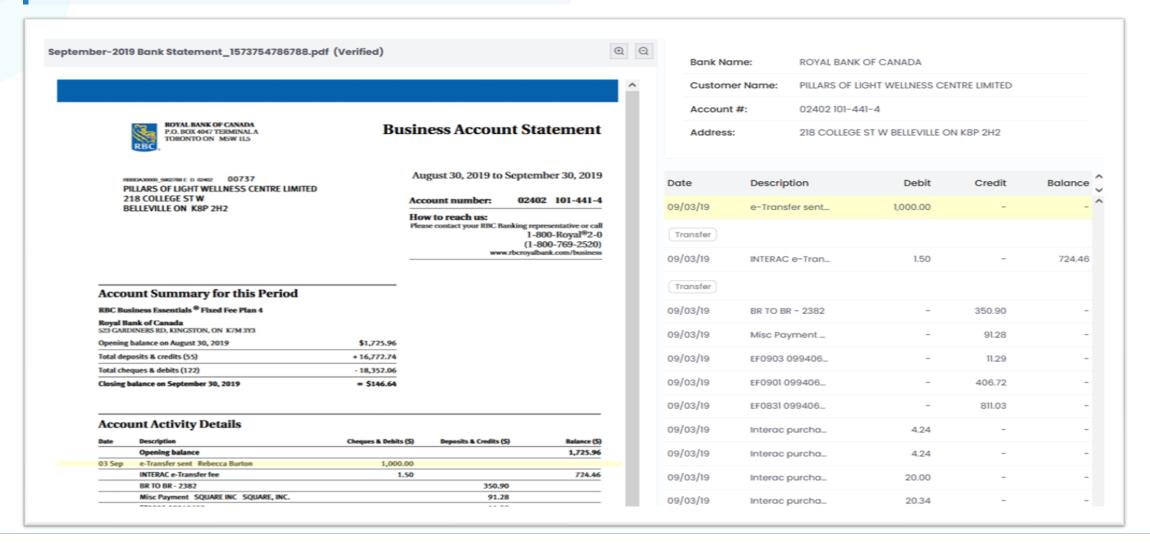
- SaaS platform for different loan providers
- Doing OCR of Bank Statements and Processing Statements
- Providing insights and detailed analysis
- Rest APIs support is available for integration
- Integration with Salesforce

- Azure cloud-based system
- Mainly using "Azure OCR Read" service
- Azure Functions and Azure API management
- Azure Blob storage





# Recent Projects: SCANN (Sample)







#### Recent Projects: **BREG OCR (Healthcare)**

- OCR utility for Claim processing system
- Doing OCR and making claim documents searchable
- Claim documents has handwritten data as well
- ❖ 50,000+ documents already indexed
- Processing 1,000+ documents on daily basis

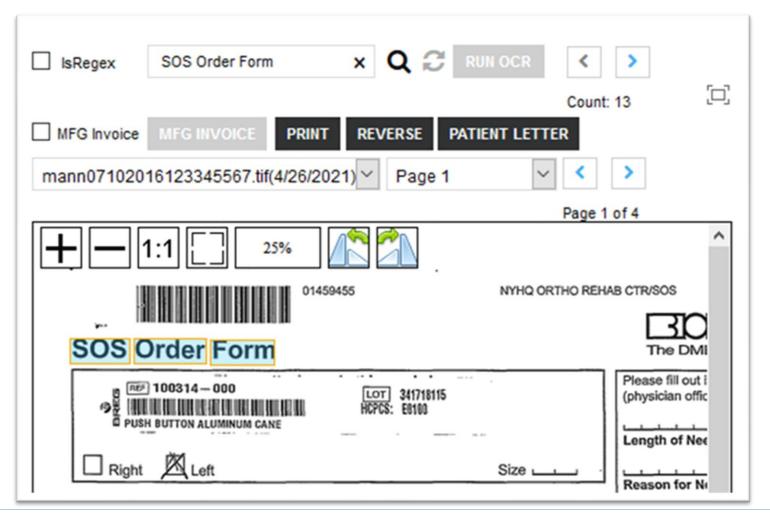
- Azure cloud-based system
- Mainly using "Azure Cognitive Search" service
- Azure Functions
- Azure Blob storage







#### Recent Projects: BREG OCR (Sample)

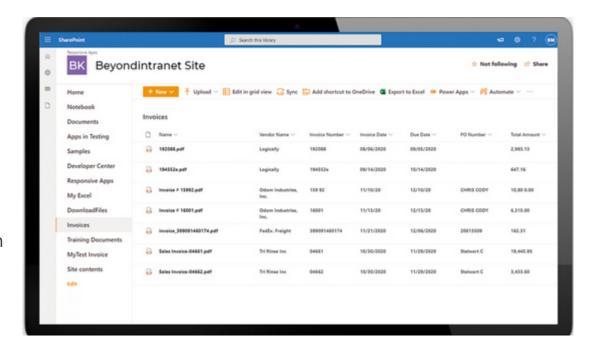




#### Recent Projects: SIPCAM AGRO

- Custom Microsoft 365 Al solution using OCR for processing Invoices
- Invoices could be automatically read from an email and then pushed to the SharePoint document library
- Using OCR data automatically captured in SharePoint document library fields
- Sipcam Agro receives multiple invoices on an everyday basis from some of their 300 vendors

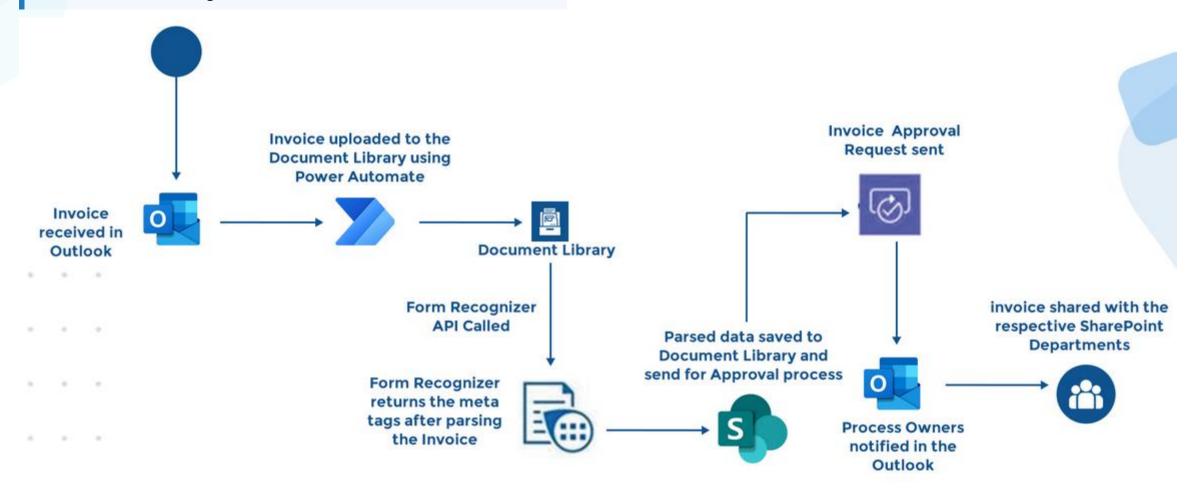
- Microsoft Power Automate
- Mainly using "Azure Form Recognizer" service
- SharePoint







# Recent Projects: SIPCAM AGRO (Flow)







# Recent Projects: SIPCAM AGRO (Sample)



Invoice	16334207
Date	02/23/2021
Page	1 of 1

TOTAL QUALITY LOGISTICS (Please reference #16334207 when making payment.)

PICKUPS ODOMIND INDUSTRIES (02/17/2021)

Bill To: SIPCAM AGRO U S A INC 2525 MERIDIAN PARKWAY DURHAM, NC 27713

DROPS FBN-LBT (LINCOLN, NE) (02/20/2021)

Salesperson ID	Customer ID			Trailer Size		Payment Terms	
Tyanna L Carter	11900658	Reefer 53 ft			DUE UPON R		
Rate Type Hazmat Load		# of Pallets # of 0				Veight	
PTL Customer PO N	No	Description 1	6	Rate	41340 UOM		
Quantity Customer PO N 1 21010054	FREIGHT	Description		2.485.00000	Flat	Amount \$2,485.00	
	portal, TQL TRAX. Would you prefer ACustomerQuesti via email or fax	our invoices online with our free cust Visit or Click <u>TOL com/TRAX</u> to lear to be paperless? Please email Acc oms@tol.com and we can begin in	m more. counting at twoicing you				
		DUNTS RECEIVABLE INFORMATION D RED BOOK, COMPUNET, & EXPERIAN		Total USD		\$2,485.00	

THANK YOU VERY MUCH FOR YOUR BUSINESS ANY QUESTIONS OR CHANGE IN ADDRESS. PLEASE CALL US AT (513) 831-2600 OR VISIT US AT WWW.TQL.COM

Amounts not paid within 30 days of the date of the invoice are subject to a 1.5% monthly finance

Invoices										
☐ Name ∨		Vendor Name ∨	Invoice Number ∨	Invoice Date $\vee$	Due Date ∨	PO Number ∨	Total Amount ∨	Amount ∨	Status ∨	Accuracy \
G2009251_2021	0311T110935.pdf	TMC Transportation	62009251	3/11/2021		. 01/72 2021	7,100.00	\$7,100.00	Parse Completed	84
Sales_Order_1	154893_20210311T071746.pdf	KaMin LLC	535016	09-MAR-21	08-APR-21	21070132	15,405.60	\$15,405.60	Parse Completed	100
G 0062531_20210	311T052320.pdf	Farmers Grain Express, Inc.	0062519	3/10/21	01/27/021	90100236-90206186	2,803.00	\$2,803.00	Parse Completed	100
<u>a</u> 0062552_20210	3311T052319.pdf	Farmers Grain Express, Inc.	0062552	3/10/21	3/08/21	69925	2,305.00	\$2,305.00	Parse Completed	100
<u>a</u> 0062519_20210	311T052317.pdf	Farmers Grain Express, Inc.	0062519	3/10/21	3/03/21	90100236-90206186	2,803.00	\$2,803.00	Parse Completed	100
🔒 I18083 PW Pos	ted Invoice_20210311T050853.pdf	Outsource Logistics LLC	118083	3/8/2021	4/7/2021		33.0033.00	\$0.00	Parse Completed	84
lnvoice_SLI-415	i28020_20210310T200913.pdf	GREIF	SLI-41528020	03-10-2021	04-09-2021	21000018 -7 03-10-2021	9919.689919.68	\$0.00	Parse Completed	100
62009227_2021	0310T110451.pdf	TMC Transportation	62009227	3/10/2021		62009227	6,700.00	\$6,700.00	Parse Completed	84
Sales_Order_1	154893_20210310T071645.pdf	KaMin LLC	534974	08-MAR-21	07-APR-21	21070130	15,405.60	\$15,405.60	Parse Completed	100
G 0062422_20210	)310T051319.pdf	Farmers Grain Express, Inc.	0062422	3/09/21	3/01/21	133401	2,080.00	\$2,080.00	Parse Completed	100
0062423_20210	310T051318.pdf 🖻 :	Farmers Grain Express,	0062423	3/09/21	0447567 :	133368	2,200.00	\$2,200.00	Parse Completed	100





#### Recent Projects: Miracle Pet

- Custom Microsoft 365 Al based Lot Tracking Application
- Complete process automation which includes OCR
- System is scanning Invoices and doing OCR
- Data extracted through OCR is saved in Database
- Based on extracted data System generates printable QR code, which can be used for further tracking

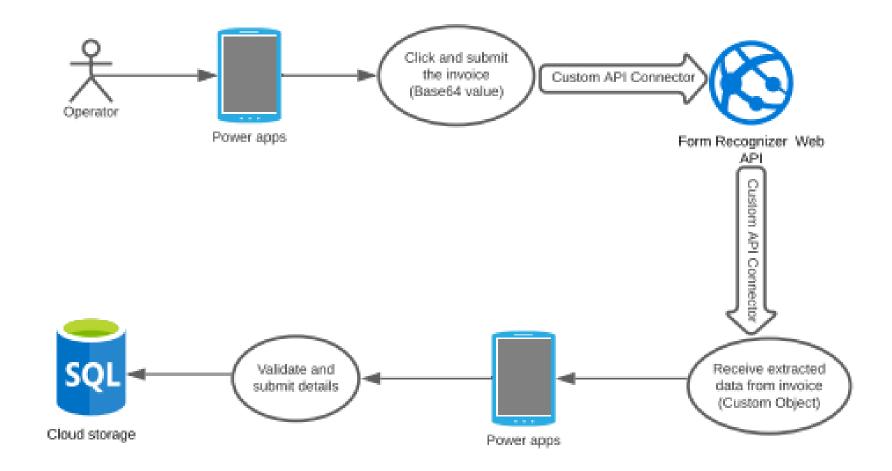
- Microsoft Power Automate
- Mainly using "Azure Form Recognizer" service
- SharePoint







## Recent Projects: Miracle Pet (Flow)

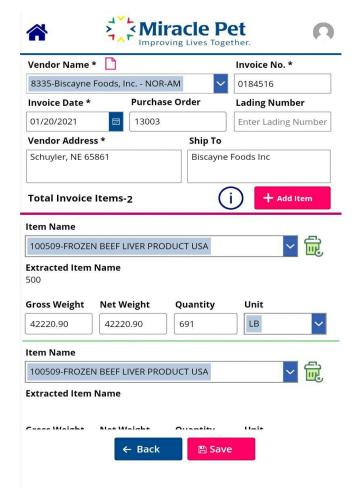


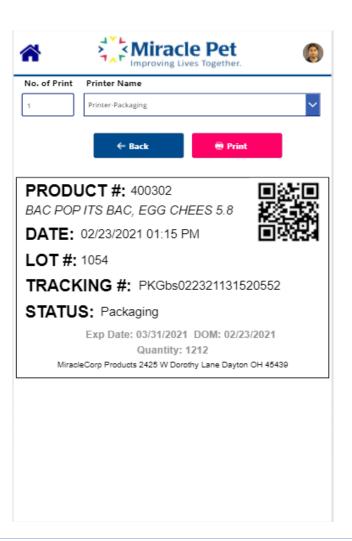




# Recent Projects: Miracle Pet (Screen shots)





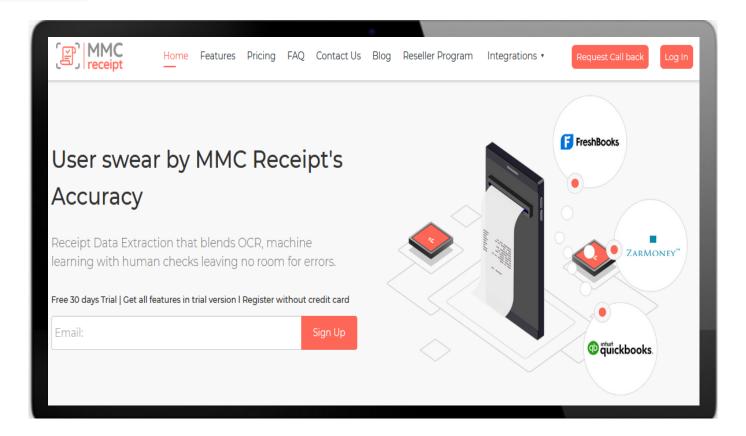




## Recent Projects: MMC Receipt

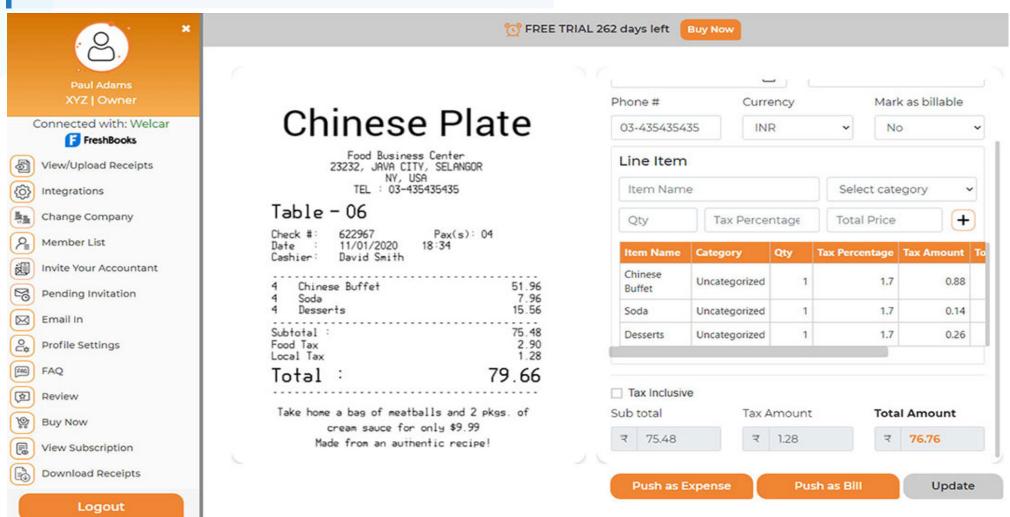
- OCR utility in this system does OCR of Receipts
- Extracting different values for further processing
- Rest APIs support is available for integration

- Azure cloud-based system
- Mainly using "Azure Form Recognizer" service
- Azure Functions
- Azure Blob storage





# Recent Projects: MMC Receipt (Sample)







# Recent Projects: Tax Form Processing

- System is under development
- Doing OCR of "US Individual Tax Return Forms" (Form 1040 or 1040-SR)
- Extracting different values for further processing
- Rest APIs support is available for integration

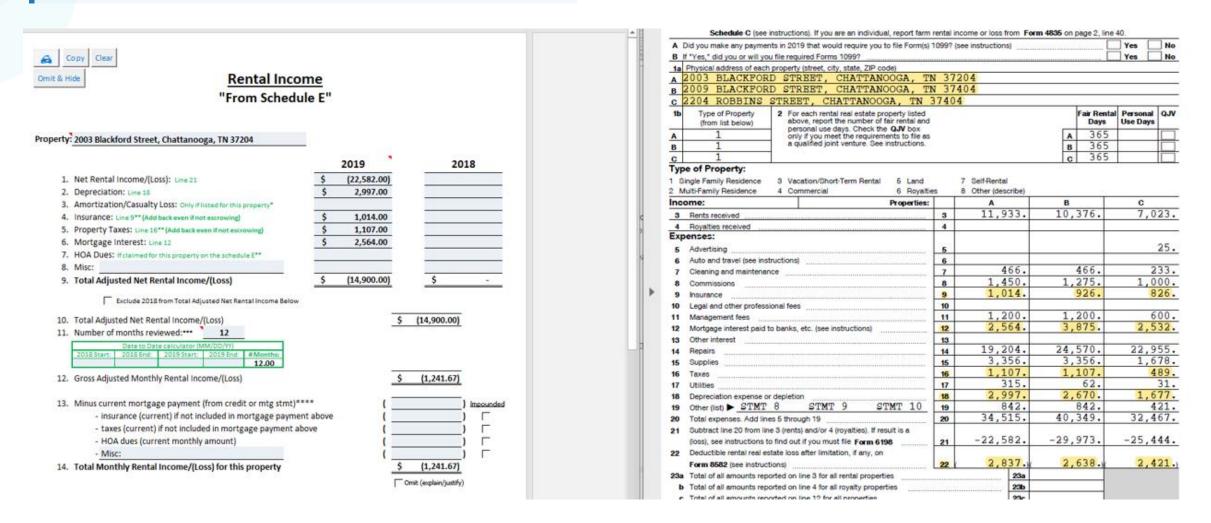
- AWS cloud-based system
- Mainly using "Amazon Textract" service
- AWS Lambda and AWS API Gateway
- Amazon S3







# Recent Projects: Tax Form Processing (Sample)







# Technology Stack: Azure & AWS



Azure Cognitive Search











# Technology Stack: Open-Source

Programming Languages	Applied Math and Algorithms	Machine Learning Algorithms	Libraries and Frameworks	Neural Network Architectures	Data Visualization	Object Detection
python*	Linear Algebra	Linear Logistic regression	learn machine learning in Python OpenCV		matpletlib seabern	1 TensorFlow
	Calculus	Support Vector KNN Machine P(B A) P(A)	NumPy pandas	ANN		Object Detection
	Statistics	P(A B) = P(B)  Naive Bayes	† TensorFlow	RNN		API
	probability	Deep Neural Decision Networks Tree	K Keras	11		





