



DOCUMENT INTELLIGENCE

HANA M. | PRACTICUM 1

TROCR & TABLE TRANSFORMER

THE PROBLEM

- Personal project
 - Manually copying and pasting parts of table in a pdf
 - Need a bulk part of table
- Systems found
 - Amazon textract
 - Other paid services

DATASET

- 1,000+ dataset
 - Kaggle
 - Government handbook (tables)
 - Bankruptcy legal documents
- Roboflow
 - 105 dataset labeled
 - Labels
 - Header
 - Paragraph
 - Table
 - Table header_row & Table header_column
 - Table info

COMPSTAT DAI Statistical Report - 13 Month

Data Analysis 13 Month as of 09-09-2010
Location(s): CCL, COA, HDSP, KVSP, PRSP, SAC, SVSP

	2009						2010						
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
PBSP Total EOP Populations													
Budgeted Capacity	66	66	66	66	66	66	66	66	66	66	66	66	66
Actual Population	180	186	178	175	183	188	183	176	176	164	171	163	160
EOP-SP (SP Housing Program)													
Budgeted Capacity	66	66	66	66	66	66	66	66	66	66	66	66	66
Actual Population	68	65	64	64	68	71	67	63	59	59	60	60	62
EOP Other Housing Programs													
Budgeted Capacity	112	121	114	111	115	117	116	113	116	105	111	103	98
Actual Population													
EOP-SNY													
Budgeted Capacity	0	0	0	0	0	0	0	0	0	0	0	0	0
Actual Population	0	0	0	0	0	0	0	0	0	0	0	0	0
EOP-ASU													
Budgeted Capacity	0	0	0	0	0	0	0	0	0	0	0	0	0
Actual Population	0	0	0	0	0	0	0	0	1	0	0	0	0
Psychiatric Services Unit													
Budgeted Capacity	128	128	128	128	128	128	128	128	128	128	128	128	128
Actual Population	113	116	117	107	110	111	105	103	108	109	111	110	108
Average Length of Stay	402	333	321	370	372	342	355	329	315	303	305	316	316
Security Housing Unit													
Budgeted Capacity	1,109	1,109	1,109	1,109	1,109	1,109	1,109	1,109	1,109	1,109	1,109	1,109	1,109
Actual Population	1,120	1,126	1,124	1,121	1,122	1,121	1,114	1,115	1,117	1,116	1,113	1,114	1,115
Single Cell Inmate													
Single Cell Inmate Summary							1,446	1,437	1,454	1,458	1,484	1,466	1,466
Summary with S-Suffix							1,365	1,357	1,390	1,386	1,403	1,414	1,417
Summary without S-Suffix							81	80	64	72	81	52	49
Total General Population (GP)	104	83	79	83	60	63	57	48	50	45	58	46	46
GP with S-Suffix	59	52	50	47	45	41	38	38	37	39	42	34	32
GP without S-Suffix	45	31	29	36	15	22	19	10	13	6	16	12	14

**Bankruptcy Events
Alphabetical Listing
Revised 5/17/2016**

Chapter 13 Calculation of Your Disposable Income Form 122C-2 (Means Test)	Other BK
Chapter 13 Debtor's Certifications Regarding Domestic Support Obligations and § 522(a)	Other BK
Chapter 13 Plan Filed After Commencement (Not to be Used to File an Amended Chapter 13 Plan)	Plan BK
Chapter 13 Plan With Petition	Plan BK
Ch13 Statement of Your Current Monthly Income and Calc of Commitment Prd Form 122C-1 (Means Test)	Other BK
Chapter 15 Service List	Other BK
Civil Cover Sheet	Appeal BK
Compel	Motions/Applications/Presentments
Compel Abandonment (Fee Due)	Motions/Applications/Presentments
Compensation (Application)	Motions/Applications/Presentments
Compromise Controversy	Motions/Applications/Presentments
Conditional Use of Cash Collateral	Motions/Applications/Presentments
Confirm Termination or Absence of Stay	Motions/Applications/Presentments
Contempt	Motions/Applications/Presentments
Continuation of Utility Service	Motions/Applications/Presentments
Continue Hearing	Motions/Applications/Presentments
Continue/Extend/Reimpose Stay	Motions/Applications/Presentments
Convert Case 11 to 7 (Fee Due)	Motions/Applications/Presentments

Train 77 imgs – 10,000 crops

Valid 20 img – 3,000 crops

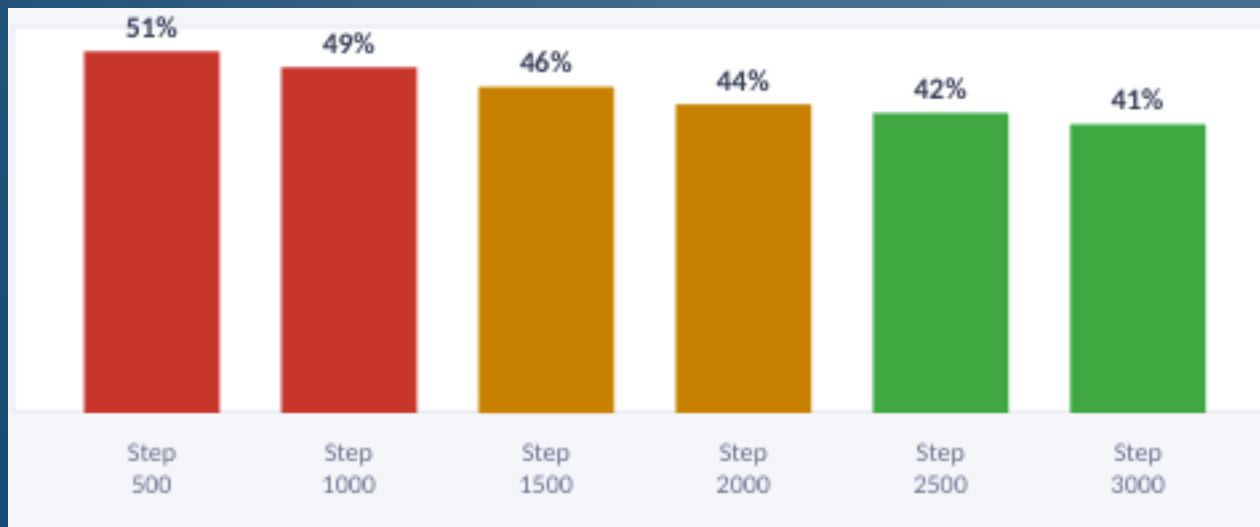
Test: 12 img (excluded)

MODEL WALK THROUGH

- Takes input document image & YOLO label file
- 2 Paths
 - Simple pdf
 - Table input pdf

RESULT

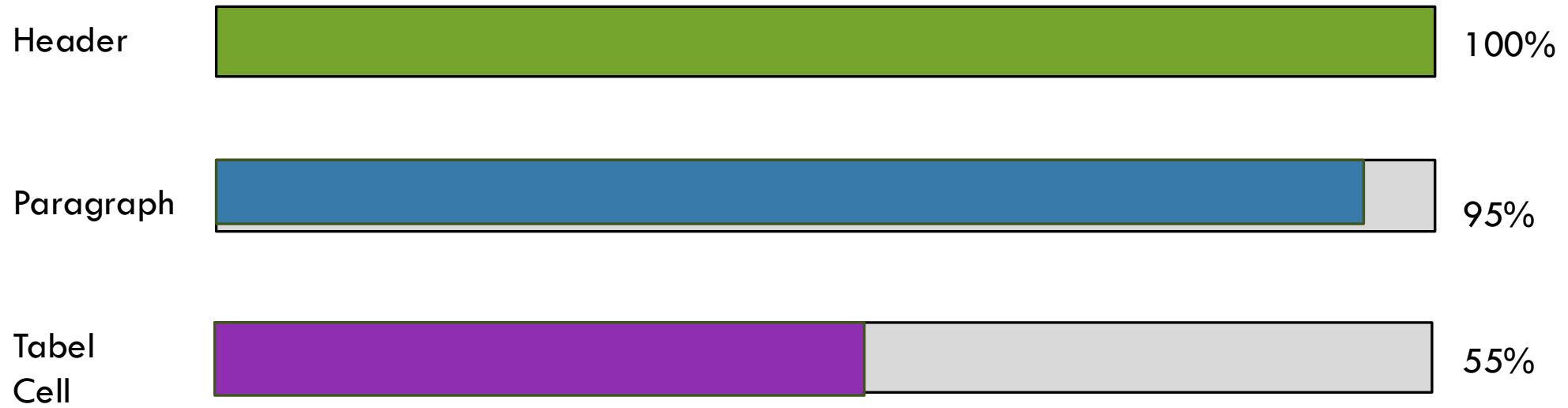
- CER by training time



1hr16M
Training time on COLAB

40.8%
Final Error Rate

ACCURACY BY CLASS TYPE



CRITICAL FINDS AND FUTURE WORK & GROWTH

- Although I had a lot of data they all covered the same topic therefore there was a lack of diversity.
- Model worked well with bankruptcy doc data set
 - Tested with UN flood report pdf got Low accuracy
- Convert to csv file format
 - Connect to an LLM (to interact with text)
- Roboflow data labeling model



QUESTION ?

REFERENCE

Anthropic. (2025-2026). Claude [AI assistant]

<https://claude.ai>

L

i, M., Cui, L., Huang, D. W., Guan, T., Peng, B., & Wei, F.

(2021). *TrOCR: Transformer-based Optical Character*

Recognition with Pre-trained Models. Hugging Face

Documentation. [https://huggingface.co/docs/transformers/e](https://huggingface.co/docs/transformers/en/model_doc/trocr)

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Roboflow. (2024). *Roboflow: Computer vision tools for*

developers and researchers. Retrieved

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