EWT (basic)

trained on: en_ewt-ud-train.iob2 + en_ewt-ud-dev.iob2
tested on: lyrics_test.iob2

recall: 0.7777076097252921

precision: 0.8295722465476592

slot-f1:   0.8028031290743154

unlabeled

ul_recall: 0.8190716766656142

ul_precision: 0.8736948467497474

ul_slot-f1: 0.8455019556714474

loose (partial overlap with same label)

l_recall: 0.8288601199873697

l_precision: 0.8858201414617717

l_slot-f1: 0.8563940522867102

Mistake breakdown:

Correct   29740
Missed   791
wrong_label   307
spurious   256
I-PER->B-PER   56
B-ORG->B-PER   41
B-PER->B-LOC   40
B-ORG->B-LOC   35
I-ORG->I-PER   22
I-ORG->I-LOC   20
B-LOC->B-PER   16
I-PER->I-LOC   15
B-PER->B-ORG   13
I-LOC->B-LOC   9
I-PER->I-ORG   8
B-PER->I-PER   8
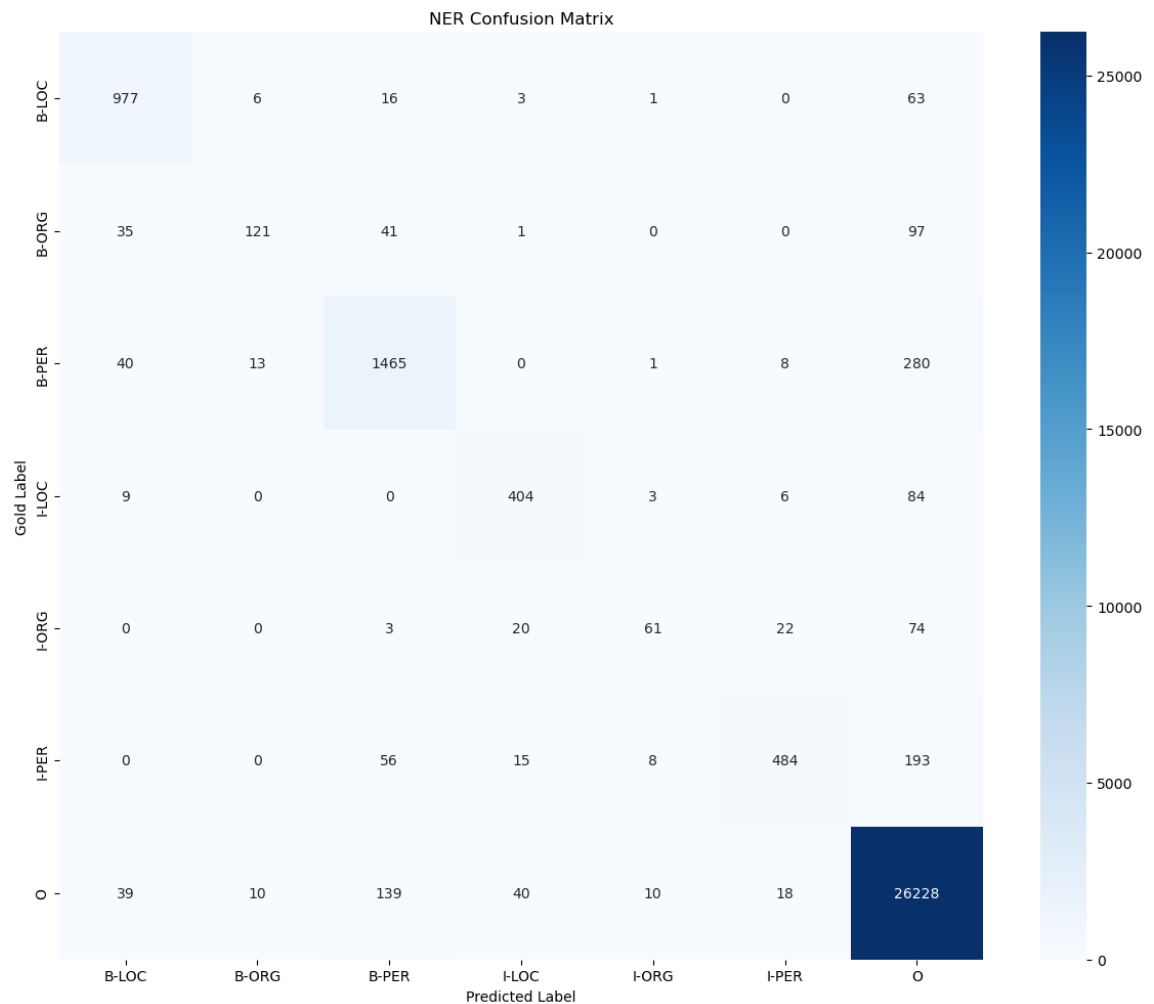B-LOC->B-ORG   6
I-LOC->I-PER   6
I-ORG->B-PER   3
B-LOC->I-LOC   3
I-LOC->I-ORG   3
B-LOC->I-ORG   1
B-ORG->I-LOC   1
B-PER->I-ORG   1

NER Confusion Matrix

Gold Label \ Predicted Label	B-LOC	B-ORG	B-PER	I-LOC	I-ORG	I-PER	O
B-LOC	977	6	16	3	1	0	63
B-ORG	35	121	41	1	0	0	97
B-PER	40	13	1465	0	1	8	280
I-LOC	9	0	0	404	3	6	84
I-ORG	0	0	3	20	61	22	74
I-PER	0	0	56	15	8	484	193
O	39	10	139	40	10	18	26228

EWT (DAPT)

trained on: en_ewt-ud-train.iob2 + en_ewt-ud-dev.iob2

tested on: lyrics_test.iob2

recall: 0.7859172718661194

precision: 0.8434429007116232

slot-f1: 0.813664596273292

unlabeled

ul_recall: 0.8228607514998422

ul_precision: 0.8830904778041342

ul_slot-f1:   0.8519123896698266

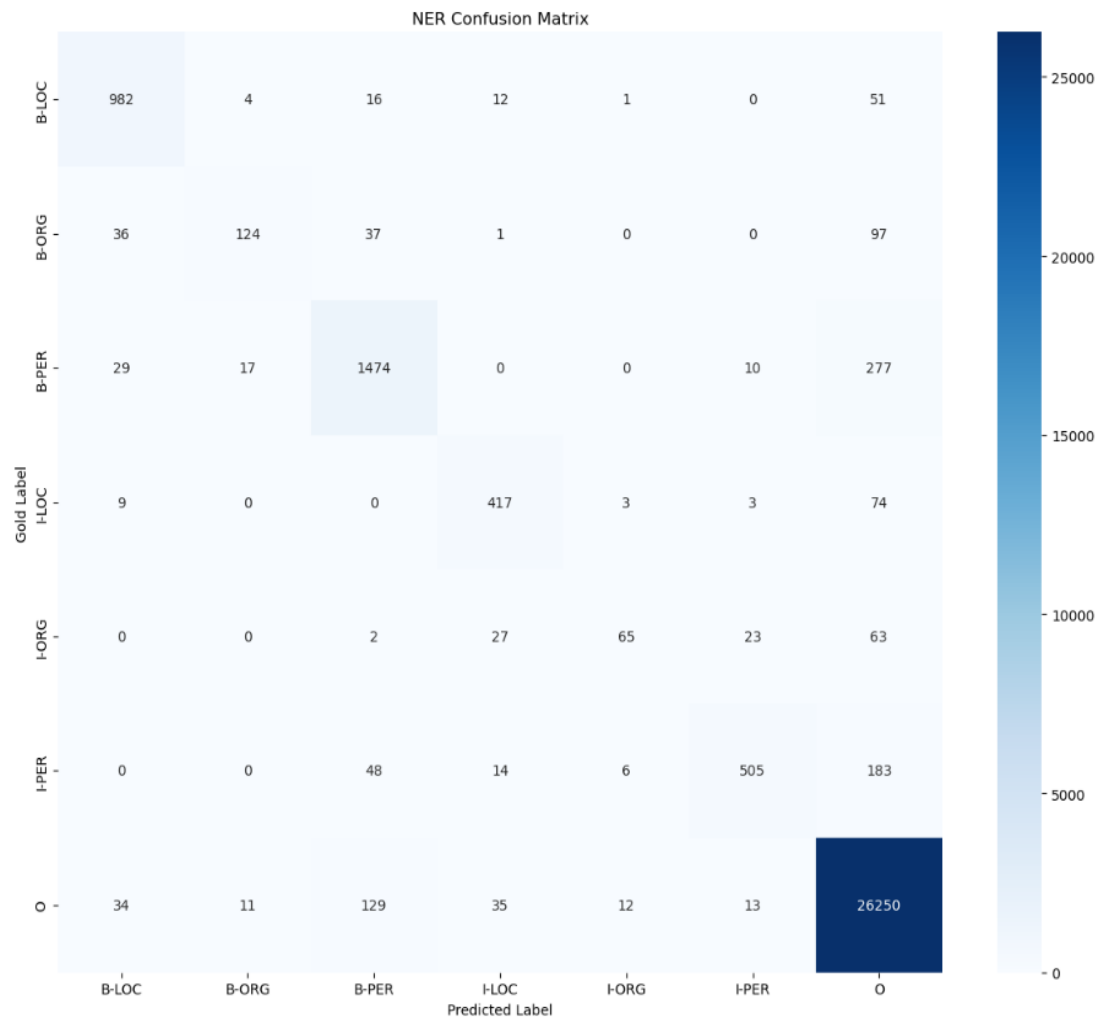**loose (partial overlap with same label)**

l_recall: 0.8320176823492264

l_precision: 0.8952897322941376

l_slot-f1:   0.8624948654530336

Mistake breakdown:

Correct   29817
Missed   745
wrong_label   298
spurious   234
I-PER->B-PER   48
B-ORG->B-PER   37
B-ORG->B-LOC   36
B-PER->B-LOC   29
I-ORG->I-LOC   27
I-ORG->I-PER   23
B-PER->B-ORG   17
B-LOC->B-PER   16
I-PER->I-LOC   14
B-LOC->I-LOC   12
B-PER->I-PER   10
I-LOC->B-LOC   9
I-PER->I-ORG   6
B-LOC->B-ORG   4
I-LOC->I-ORG   3
I-LOC->I-PER   3
I-ORG->B-PER   2
B-LOC->I-ORG   1
B-ORG->I-LOC   1

NER Confusion Matrix

EWT (DAPT) + pop

trained on: en_ewt-ud-train.iob2 + en_ewt-ud-dev.iob2 + pop-manual-1000-train.iob2
tested on: lyrics_test.iob2

recall: 0.8575939374802652

precision: 0.8442648430214486

slot-f1: 0.8508771929824562

unlabeled

ul_recall: 0.9081149352699716

ul_precision: 0.8940006216972335

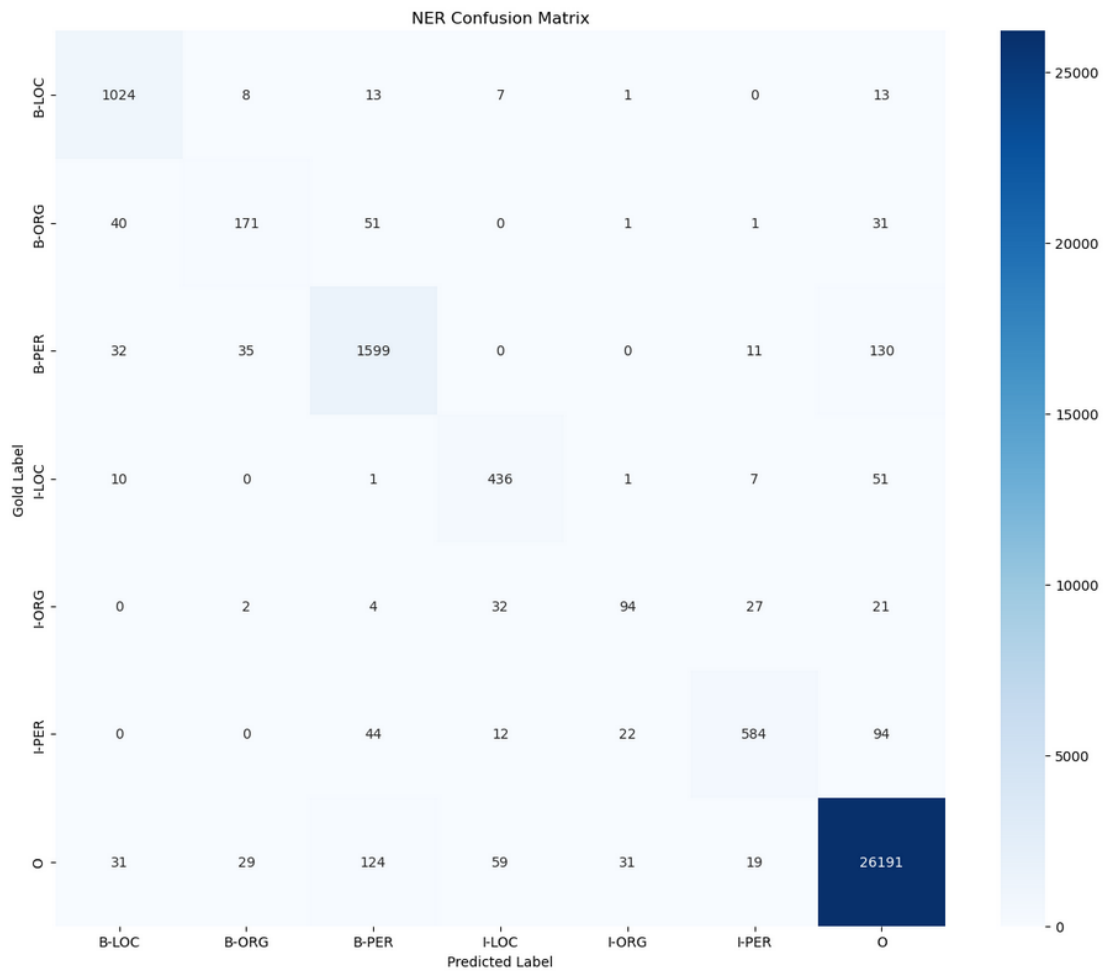ul_slot-f1: 0.9010025062656642

loose (partial overlap with same label)

l_recall: 0.897379223239659

l_precision: 0.887161952129313

l_slot-f1: 0.8922413385333924

Mistake breakdown:

```
correct      30099
wrong_label  362
missed       340
spurious     293
B-ORG->B-PER  51
I-PER->B-PER  44
B-ORG->B-LOC  40
B-PER->B-ORG  35
B-PER->B-LOC  32
I-ORG->I-LOC  32
I-ORG->I-PER  27
I-PER->I-ORG  22
B-LOC->B-PER  13
I-PER->I-LOC  12
B-PER->I-PER  11
I-LOC->B-LOC  10
B-LOC->B-ORG  8
B-LOC->I-LOC  7
I-LOC->I-PER  7
I-ORG->B-PER  4
I-ORG->B-ORG  2
I-LOC->I-ORG  1
B-LOC->I-ORG  1
B-ORG->I-ORG  1
I-LOC->B-PER  1
B-ORG->I-PER  1
```


NER Confusion Matrix

Gold Label \ Predicted Label	B-LOC	B-ORG	B-PER	I-LOC	I-ORG	I-PER	O
B-LOC	1024	8	13	7	1	0	13
B-ORG	40	171	51	0	1	1	31
B-PER	32	35	1599	0	0	11	130
I-LOC	10	0	1	436	1	7	51
I-ORG	0	2	4	32	94	27	21
I-PER	0	0	44	12	22	584	94
O	31	29	124	59	31	19	26191

EWT (DAPT) + pop (cont.)

trained on: en_ewt-ud-train.iob2 + en_ewt-ud-dev.iob2 + pop-manual-1000-train.iob2 + pop_labeled_no_2000.iob2
tested on: lyrics_test.iob2

recall: 0.8497000315756236

precision: 0.8605692356891589

slot-f1: 0.8551000953288845

unlabeled

ul_recall: 0.8958004420587307

ul_precision: 0.9072593540134314

ul_slot-f1: 0.9014934858595487

loose (partial overlap with same label)
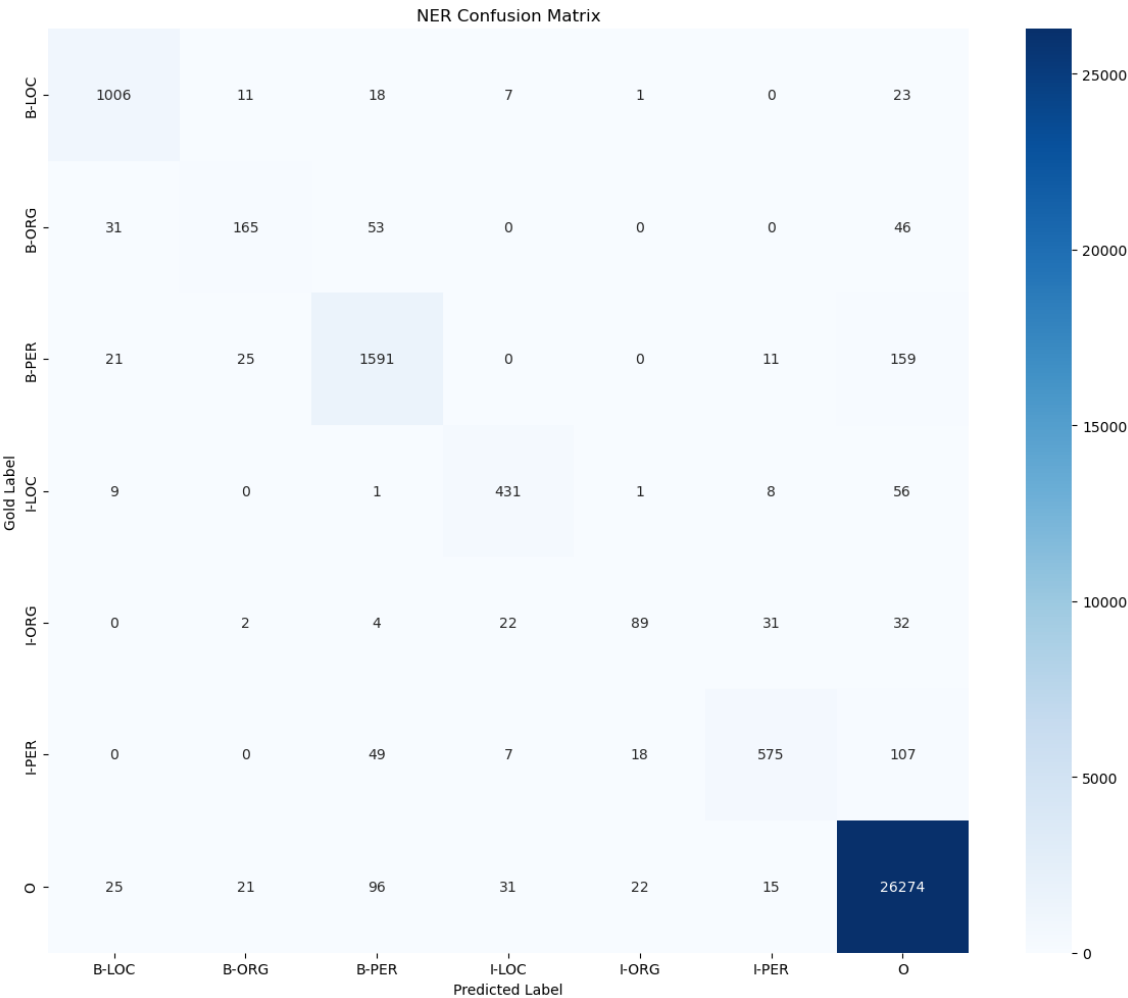
l_recall: 0.8866435112093464

l_precision: 0.9021426287176207

l_slot-f1: 0.8943259231318492

Mistake breakdown:

correct   30131
missed   423
wrong_label   330
spurious   210
B-ORG->B-PER   53
I-PER->B-PER   49
I-ORG->I-PER   31
B-ORG->B-LOC   31
B-PER->B-ORG   25
I-ORG->I-LOC   22
B-PER->B-LOC   21
B-LOC->B-PER   18
I-PER->I-ORG   18
B-LOC->B-ORG   11
B-PER->I-PER   11
I-LOC->B-LOC   9
I-LOC->I-PER   8
I-PER->I-LOC   7
B-LOC->I-LOC   7
I-ORG->B-PER   4
I-ORG->B-ORG   2
I-LOC->I-ORG   1
B-LOC->I-ORG   1
I-LOC->B-PER   1

NER Confusion Matrix

Gold Label \ Predicted Label	B-LOC	B-ORG	B-PER	I-LOC	I-ORG	I-PER	O
B-LOC	1006	11	18	7	1	0	23
B-ORG	31	165	53	0	0	0	46
B-PER	21	25	1591	0	0	11	159
I-LOC	9	0	1	431	1	8	56
I-ORG	0	2	4	22	89	31	32
I-PER	0	0	49	7	18	575	107
O	25	21	96	31	22	15	26274

EWT (DAPT) + country

trained on: en_ewt-ud-train.iob2 + en_ewt-ud-dev.iob2 + country-manual-1000-train.iob2
tested on: lyrics_test.iob2

recall: 0.8680138932743922

precision: 0.8260216346153846

slot-f1:   0.8464973056197074

unlabeled

ul_recall: 0.9163245974107989

ul_precision: 0.8719951923076923

ul_slot-f1:   0.8936104695919939

loose (partial overlap with same label)
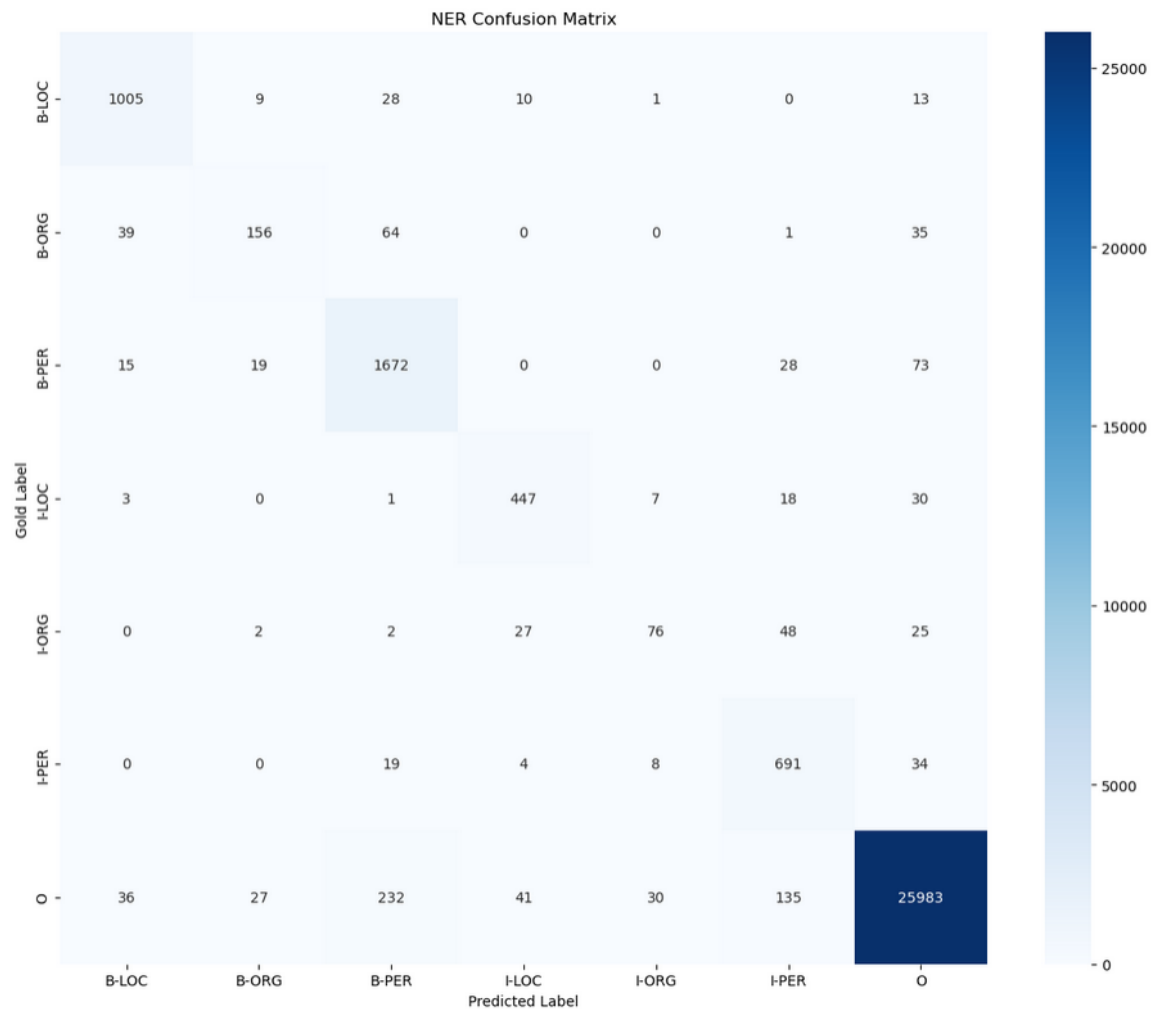
l_recall: 0.905904641616672

l_precision: 0.8620793269230769

l_slot-f1:   0.8834488067744418

Mistake breakdown:
correct   30030
spurious   501
wrong_label 353
missed   210
B-ORG->B-PER   64
I-ORG->I-PER   48
B-ORG->B-LOC   39
B-LOC->B-PER   28
B-PER->I-PER   28
I-ORG->I-LOC   27
I-PER->B-PER   19
B-PER->B-ORG   19
I-LOC->I-PER   18
B-PER->B-LOC   15
B-LOC->I-LOC   10
B-LOC->B-ORG   9
I-PER->I-ORG   8
I-LOC->I-ORG   7
I-PER->I-LOC   4
I-LOC->B-LOC   3
I-ORG->B-PER   2
I-ORG->B-ORG   2
B-LOC->I-ORG   1
B-ORG->I-PER   1
I-LOC->B-PER   1

NER Confusion Matrix

	B-LOC	B-ORG	B-PER	I-LOC	I-ORG	I-PER	O
B-LOC	1005	9	28	10	1	0	13
B-ORG	39	156	64	0	0	1	35
B-PER	15	19	1672	0	0	28	73
I-LOC	3	0	1	447	7	18	30
I-ORG	0	2	2	27	76	48	25
I-PER	0	0	19	4	8	691	34
O	36	27	232	41	30	135	25983

EWT (DAPT) + country (cont.)

trained on: en_ewt-ud-train.iob2 + en_ewt-ud-dev.iob2 + country-manual-1000-train.iob2 + country_labeled_no_2000.iob2
tested on: lyrics_test.iob2

recall: 0.8572781812440796

precision: 0.8447417548226509

slot-f1: 0.8509637987776212

unlabeled

ul_recall: 0.904957372908115

ul_precision: 0.8917237087741132

ul_slot-f1: 0.8982918037925091

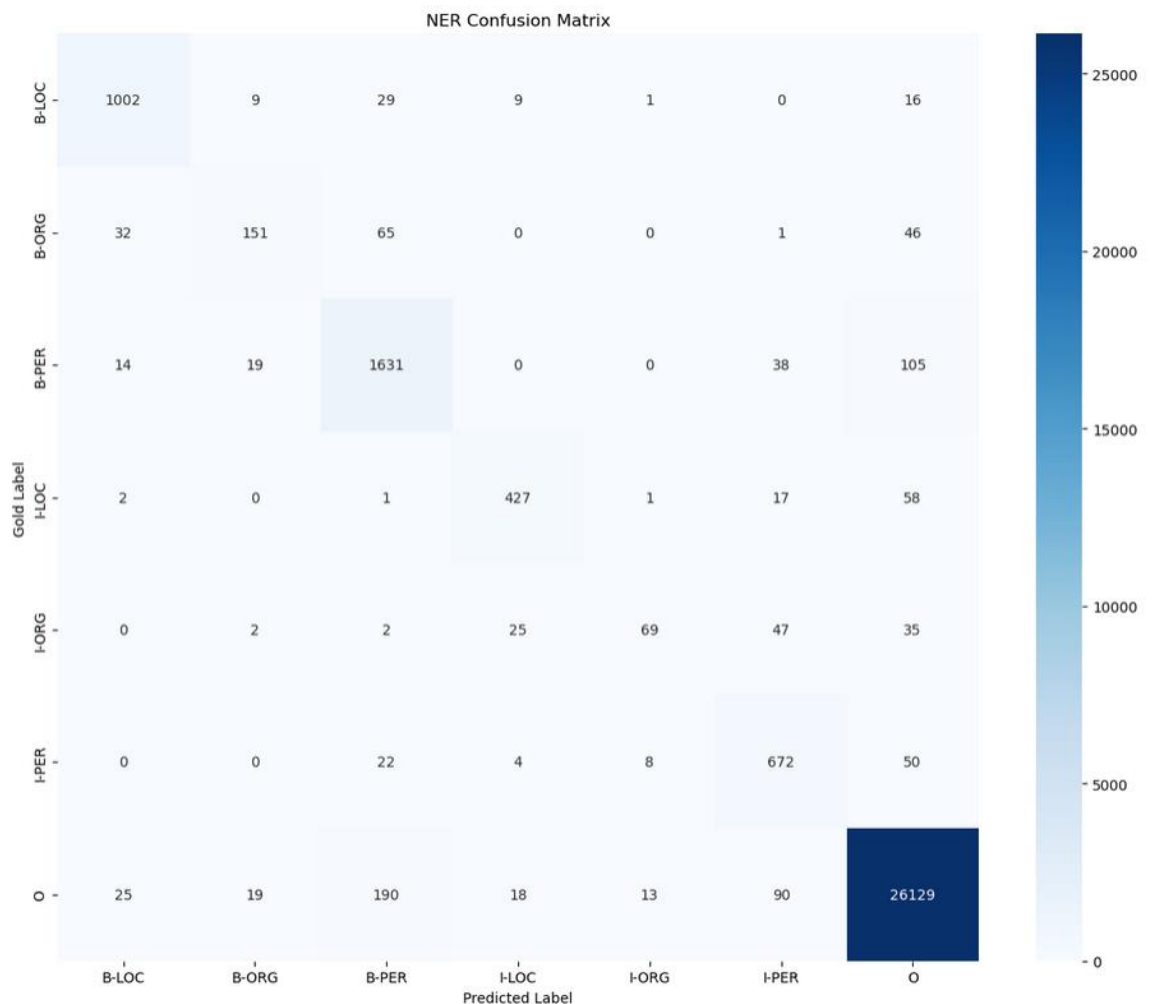**loose (partial overlap with same label)**

l_recall: 0.8901168298073887

l_precision: 0.8755444928438083

l_slot-f1: 0.8827705271985561

Mistake breakdown:
correct   30081
spurious   355
wrong_label   348
missed   310
B-ORG->B-PER   65
I-ORG->I-PER   47
B-PER->I-PER   38
B-ORG->B-LOC   32
B-LOC->B-PER   29
I-ORG->I-LOC   25
I-PER->B-PER   22
B-PER->B-ORG   19
I-LOC->I-PER   17
B-PER->B-LOC   14
B-LOC->I-LOC   9
B-LOC->B-ORG   9
I-PER->I-ORG   8
I-PER->I-LOC   4
I-LOC->B-LOC   2
I-ORG->B-PER   2
I-ORG->B-ORG   2
B-LOC->I-ORG   1
I-LOC->I-ORG   1
B-ORG->I-PER   1
I-LOC->B-PER   1

NER Confusion Matrix

Gold Label \ Predicted Label	B-LOC	B-ORG	B-PER	I-LOC	I-ORG	I-PER	O
B-LOC	1002	9	29	9	1	0	16
B-ORG	32	151	65	0	0	1	46
B-PER	14	19	1631	0	0	38	105
I-LOC	2	0	1	427	1	17	58
I-ORG	0	2	2	25	69	47	35
I-PER	0	0	22	4	8	672	50
O	25	19	190	18	13	90	26129

EWT (DAPT) + rap/hip-hop

trained on: en_ewt-ud-train.iob2 + en_ewt-ud-dev.iob2 + rap-hip-hop-manual-1000-train.iob2
tested on: lyrics_test.iob2

 recall: 0.8711714556362489

precision: 0.8335347432024169

slot-f1: 0.8519376254438784

unlabeled

ul_recall: 0.9216924534259552

ul_precision: 0.8818731117824773

ul_slot-f1: 0.9013432144511347

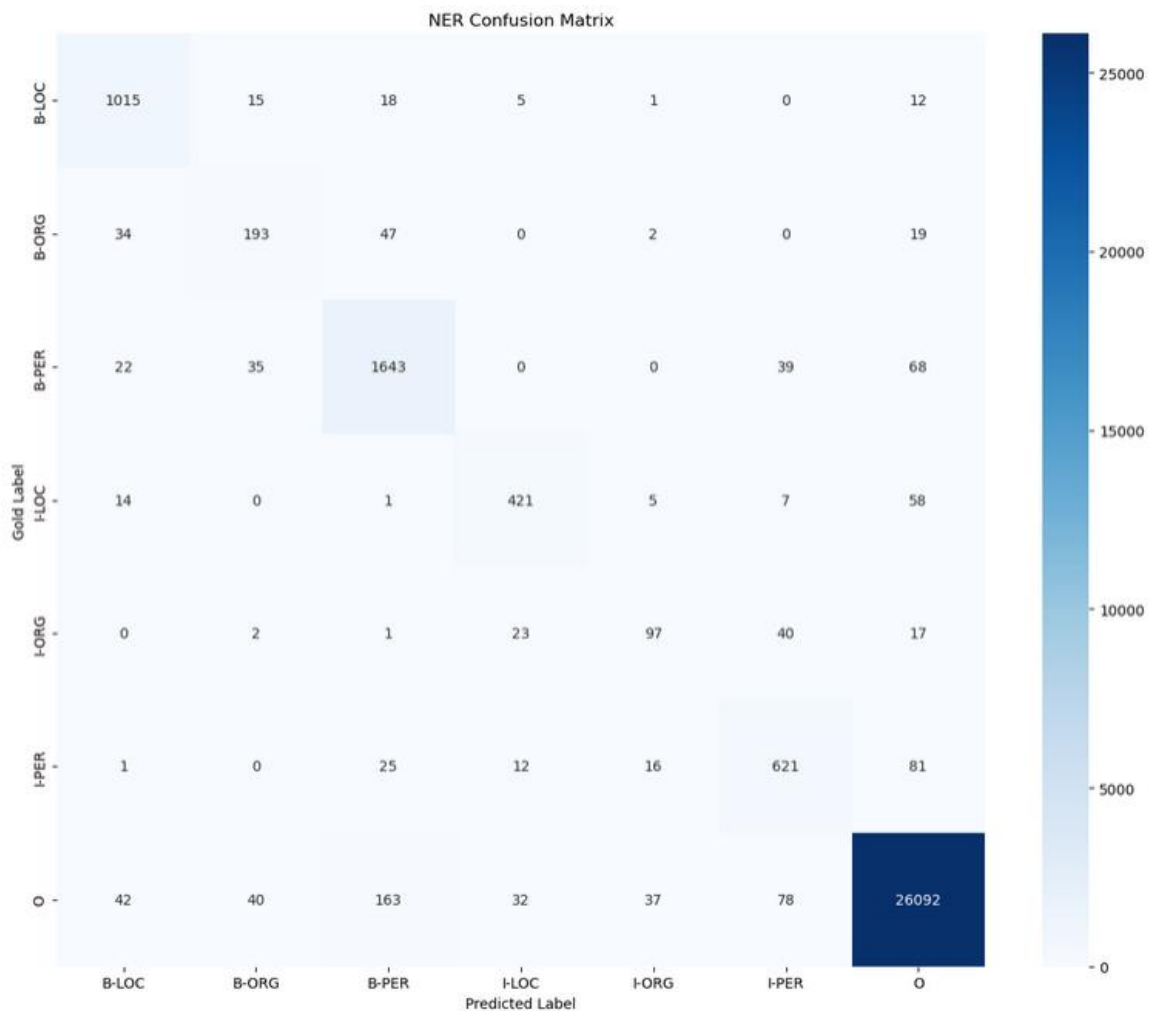**loose (partial overlap with same label)**

l_recall: 0.9172718661193558

l_precision: 0.8824773413897281

l_slot-f1: 0.8995382627393301

Mistake breakdown:

correct   30082
spurious   392
wrong_label   365
missed   255
B-ORG->B-PER   47
I-ORG->I-PER   40
B-PER->I-PER   39
B-PER->B-ORG   35
B-ORG->B-LOC   34
I-PER->B-PER   25
I-ORG->I-LOC   23
B-PER->B-LOC   22
B-LOC->B-PER   18
I-PER->I-ORG   16
B-LOC->B-ORG   15
I-LOC->B-LOC   14
I-PER->I-LOC   12
I-LOC->I-PER   7
B-LOC->I-LOC   5
I-LOC->I-ORG   5
B-ORG->I-ORG   2
I-ORG->B-ORG   2
B-LOC->I-ORG   1
I-PER->B-LOC   1
I-LOC->B-PER   1
I-ORG->B-PER   1

NER Confusion Matrix

Gold Label \ Predicted Label	B-LOC	B-ORG	B-PER	I-LOC	I-ORG	I-PER	O
B-LOC	1015	15	18	5	1	0	12
B-ORG	34	193	47	0	2	0	19
B-PER	22	35	1643	0	0	39	68
I-LOC	14	0	1	421	5	7	58
I-ORG	0	2	1	23	97	40	17
I-PER	1	0	25	12	16	621	81
O	42	40	163	32	37	78	26092

EWT (DAPT) + rap/hip-hop (cont.)

trained on: en_ewt-ud-train.iob2 + en_ewt-ud-dev.iob2 + rap-hip-hop-manual-1000-train.iob2 + rap-hip-hop_labeled_no_2000.iob2
tested on: lyrics_test.iob2

recall: 0.8746447742342911

precision: 0.8429701765063907

slot-f1: 0.8585154191848752

unlabeled

ul_recall: 0.9210609409535838

ul_precision: 0.8877054169202678

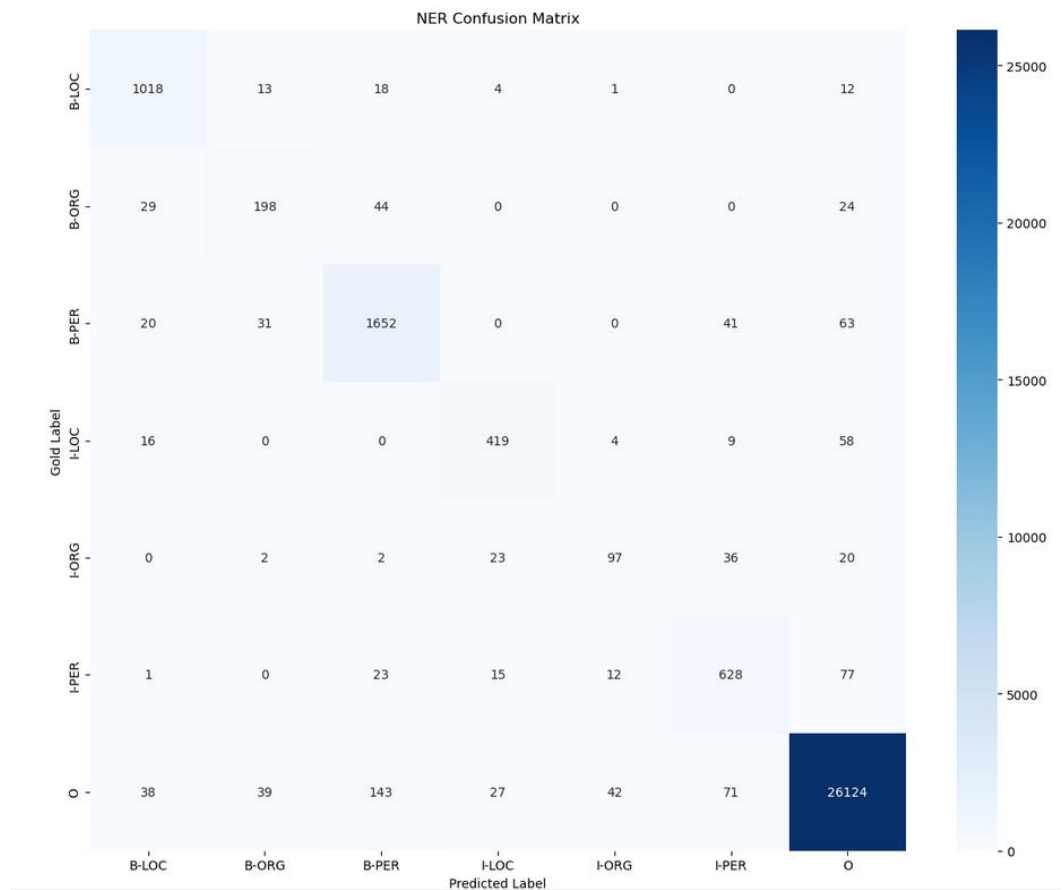ul_slot-f1: 0.9040756237408957

loose (partial overlap with same label)

l_recall: 0.9204294284812125

l_precision: 0.8919659160073037

l_slot-f1: 0.9059741637407696

Mistake breakdown:

correct	30136
spurious	360
wrong_label :	344
missed	254
B-ORG->B-PER	44
B-PER->I-PER	41
I-ORG->I-PER	36
B-PER->B-ORG	31
B-ORG->B-LOC	29
I-ORG->I-LOC	23
I-PER->B-PER	23
B-PER->B-LOC	20
B-LOC->B-PER	18
I-LOC->B-LOC	16
I-PER->I-LOC	15
B-LOC->B-ORG	13
I-PER->I-ORG	12
I-LOC->I-PER	9
B-LOC->I-LOC	4
I-LOC->I-ORG	4
I-ORG->B-PER	2
I-ORG->B-ORG	2
B-LOC->I-ORG	1
I-PER->B-LOC	1

NER Confusion Matrix

Gold Label \ Predicted Label	B-LOC	B-ORG	B-PER	I-LOC	I-ORG	I-PER	O
B-LOC	1018	13	18	4	1	0	12
B-ORG	29	198	44	0	0	0	24
B-PER	20	31	1652	0	0	41	63
I-LOC	16	0	0	419	4	9	58
I-ORG	0	2	2	23	97	36	20
I-PER	1	0	23	15	12	628	77
O	38	39	143	27	42	71	26124

EWT (DAPT) + all genres

trained on: en_ewt-ud-train.iob2 + en_ewt-ud-dev.iob2 + pop-manual-1000-train.iob2 + country-manual-1000-train.iob2 + rap-hip-hop-manual-1000-train.iob2
tested on: lyrics_test.iob2

recall: 0.8853804862646037

precision: 0.8640986132511557

slot-f1: 0.8746101060511541

unlabeled

ul_recall: 0.9305336280391537

ul_precision: 0.9081664098613251

ul_slot-f1: 0.9192139737991265

loose (partial overlap with same label)

l_recall: 0.9210609409535838

l_precision: 0.8983050847457628

l_slot-f1: 0.9095407025656412

Mistake breakdown:
correct   30270
wrong_label   308
spurious   296
missed   220
B-ORG->B-PER   49
I-ORG->I-PER   34
B-ORG->B-LOC   33
B-PER->B-ORG   27
B-PER->I-PER   26
I-PER->B-PER   24
I-ORG->I-LOC   24
B-LOC->B-PER   18
B-PER->B-LOC   16
I-PER->I-ORG   12
I-LOC->B-LOC   9
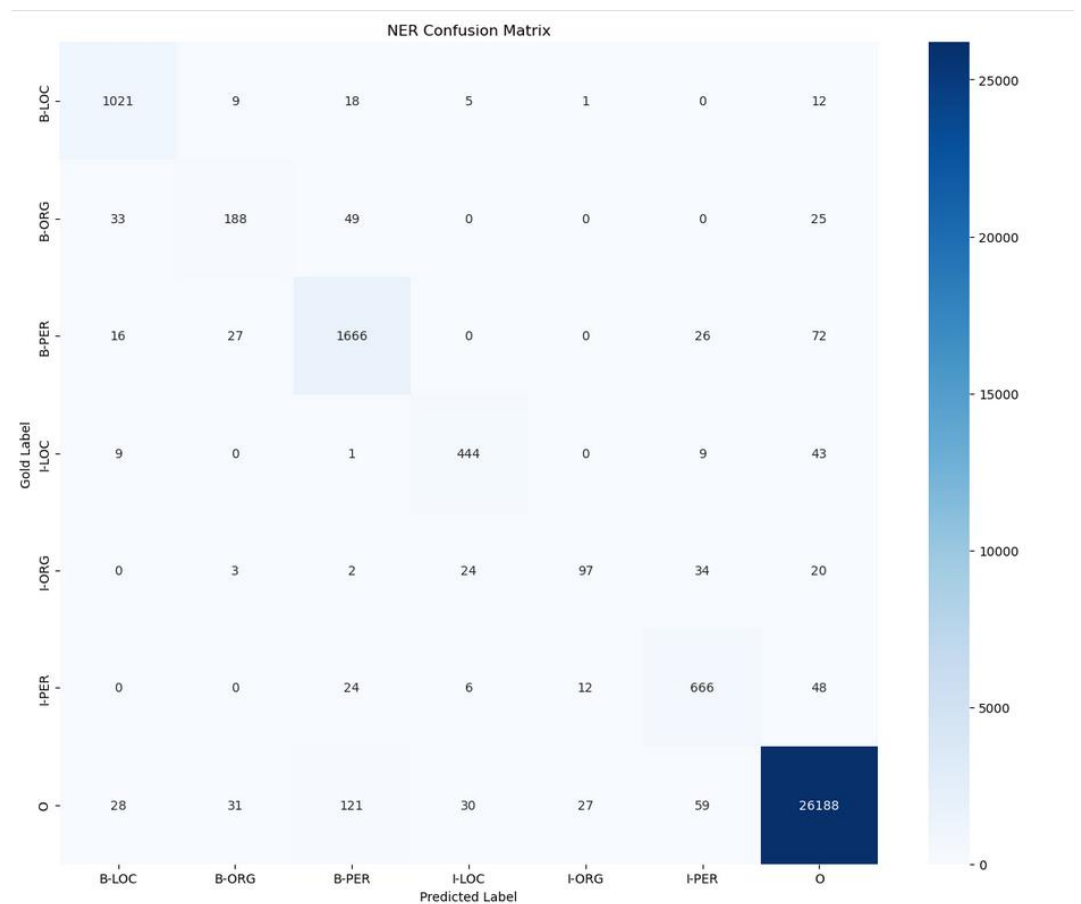B-LOC->B-ORG   9
I-LOC->I-PER   9
I-PER->I-LOC   6
B-LOC->I-LOC   5
I-ORG->B-ORG   3
I-ORG->B-PER   2
B-LOC->I-ORG   1
I-LOC->B-PER   1

NER Confusion Matrix

Gold Label \ Predicted Label	B-LOC	B-ORG	B-PER	I-LOC	I-ORG	I-PER	O
B-LOC	1021	9	18	5	1	0	12
B-ORG	33	188	49	0	0	0	25
B-PER	16	27	1666	0	0	26	72
I-LOC	9	0	1	444	0	9	43
I-ORG	0	3	2	24	97	34	20
I-PER	0	0	24	6	12	666	48
O	28	31	121	30	27	59	26188

trained on: en_ewt-ud-train.iob2 + en_ewt-ud-dev.iob2 + pop-manual-1000-train.iob2 + pop_labeled_no_2000.iob2 + country-manual-1000-train.iob2 + country_labeled_no_2000.iob2 + rap-hip-hop-manual-1000-train.iob2 + rap-hip-hop_labeled_no_2000.iob2
tested on: lyrics_test.iob2

recall: 0.8828544363751184

precision: 0.8667079975201488

slot-f1: 0.8747067104645706

unlabeled

ul_recall: 0.9251657720239975

ul_precision: 0.9082455052696838

ul_slot-f1: 0.9166275613952761

loose (partial overlap with same label)

l_recall: 0.9216924534259552

l_precision: 0.9070055796652201

l_slot-f1: 0.9142900389951772

Mistake breakdown:
correct   30260
wrong_label   309
spurious   304
missed   221
B-ORG->B-PER   44
I-ORG->I-PER   35
B-ORG->B-LOC   30
B-PER->I-PER   29
I-ORG->I-LOC   28
B-PER->B-ORG   24
I-PER->B-PER   21
B-LOC->B-PER   18
B-PER->B-LOC   15
I-LOC->B-LOC   13
B-LOC->B-ORG   13
I-LOC->I-PER   10
I-PER->I-ORG   10
I-PER->I-LOC   7
I-ORG->B-ORG   4
B-LOC->I-LOC   3
I-ORG->B-PER   2
B-PER->I-ORG   2
I-LOC->B-PER   1

NER Confusion Matrix