

FINAL TEST EVALUATION

✓ Loaded best model from best_pos_tagger_model_FOLDER.pt for final evaluation.

Evaluating: 100%

1/1 [00:09<00:00, 9.87s/it, loss=0.4934, acc=0.8348]

Test Loss: 0.4934

Test Accuracy: 0.8348 (83.48%)

🎉 TRAINING COMPLETE ON GAUDI HPU!

Best Val Acc: 0.8328

Final Test Acc: 0.8348

Final Test Accuracy Classification: 📈 Decent. Room for improvement.

📖 Vocabulary Summary:

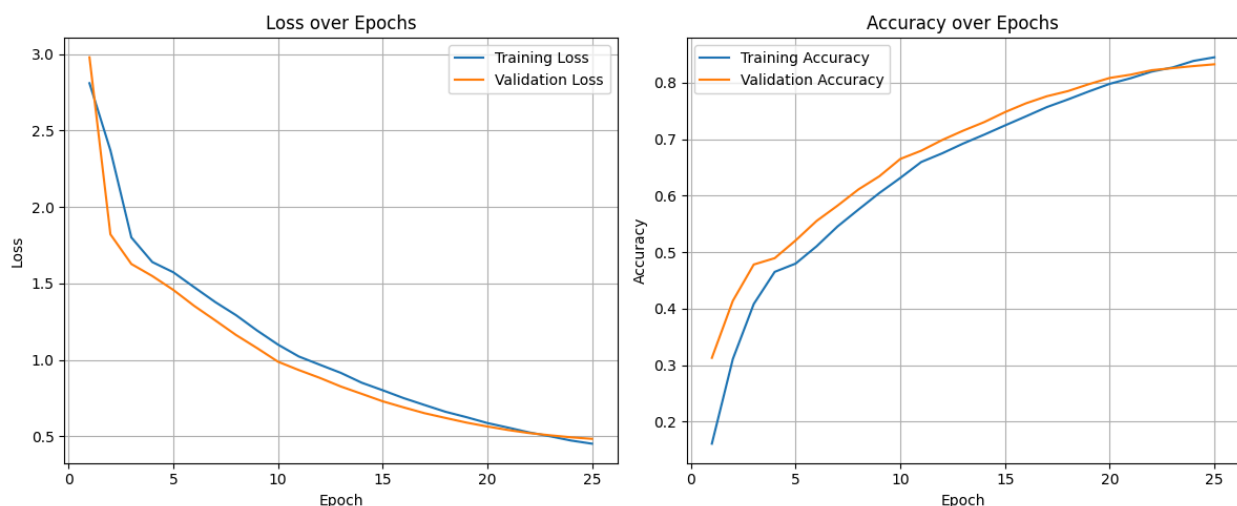
Words: 6,485

POS tags: 18

Sample words: ['Gero', ',', 'lortutako', 'masa', 'batean', 'jarri', '.', 'Bestalde', '"', 'herri', '...']

POS tags: ['ADV', 'PUNCT', 'VERB', 'NOUN', 'NUM', 'CCONJ', 'ADJ', 'AUX', 'PROPN', 'DET', 'PRON', 'PART', 'SYM', 'INTJ', 'X', 'SCONJ', 'ADP']

📈 Metrics plot saved to training_metrics.png



🇧🇪 POS Tagging Results (Random Sample from Test Set):

--- Sample Sentence 1 ---

Word	Predicted Tag	Actual Tag	Correct?
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Kubako	PROP	PROP		✓
eta	CCONJ	CCONJ		✓
<unk>	NOUN	NOUN		✓
<unk>	NOUN	VERB		✗
dauden	VERB	AUX		✗
atzerriko	NOUN	NOUN		✓
<unk>	NOUN	NOUN		✓
aurrean	ADP	ADP		✓
egindako	VERB	VERB		✓
lehen	ADJ	ADJ		✓
<unk>	NOUN	NOUN		✓
,	PUNCT	PUNCT		✓
esan	VERB	VERB		✓
zuen	AUX	AUX		✓
prentsa	NOUN	NOUN		✓
<unk>	NOUN	NOUN		✓
batzuek	DET	DET		✓
<unk>	NOUN	ADJ		✗
eta	CCONJ	CCONJ		✓
<unk>	PROP	PROP		✓
herriaren	NOUN	NOUN		✓
kanpo	ADP	NOUN		✗
<unk>	NOUN	NOUN		✓
<unk>	NOUN	ADJ		✗
<unk>	NOUN	NOUN		✓
jo	VERB	VERB		✓
zutela	AUX	AUX		✓
.	PUNCT	PUNCT		✓

--- Sample Sentence 2 ---

Word	Predicted Tag	Actual Tag	Correct?
<unk>	NOUN	VERB	✗
egin	VERB	VERB	✓
behar	NOUN	NOUN	✓
dira	VERB	VERB	✓
:	PUNCT	PUNCT	✓

--- Sample Sentence 3 ---

Word	Predicted Tag	Actual Tag	Correct?
<unk>	NOUN	PROP	✗
sarritan	ADV	ADV	✓

jokatu	VERB	VERB		✓
izan	AUX	AUX		✓
dira	AUX	AUX		✓
<unk>	NOUN	NOUN		✓
probak	NOUN	NOUN		✓
,	PUNCT	PUNCT		✓
eta	CCONJ	CCONJ		✓
esperientzia	NOUN	NOUN		✓
dute	VERB	VERB		✓
.	PUNCT	PUNCT		✓

--- Sample Sentence 4 ---

Word	Predicted Tag	Actual Tag	Correct?
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Luis	PROPN	PROPN		✓
<unk>	NOUN	PROPN		✗
fiskalak	ADJ	NOUN		✗
,	PUNCT	PUNCT		✓
hau	DET	DET		✓
ikusita	VERB	VERB		✓
,	PUNCT	PUNCT		✓
Alegriak	NOUN	PROPN		✗
<unk>	NOUN	VERB		✗
adierazpena	NOUN	NOUN		✓
ere	CCONJ	CCONJ		✓
<unk>	NOUN	NOUN		✓
zela	AUX	AUX		✓
azaltzen	VERB	VERB		✓
saiatu	VERB	VERB		✓
zen	AUX	AUX		✓
,	PUNCT	PUNCT		✓
baina	CCONJ	CCONJ		✓
fiskalak	ADJ	NOUN		✗
1997an	NUM	NUM		✓
aurkeztu	VERB	VERB		✓
<unk>	AUX	NOUN		✗
<unk>	NOUN	ADV		✗
esaten	VERB	VERB		✓
da	AUX	AUX		✓
adierazpenetan	NOUN	NOUN		✓
ez	PART	PART		✓
dela	AUX	AUX		✓
delitu	NOUN	NOUN		✓
<unk>	ADJ	NOUN		✗

ikusten	VERB	VERB	✓
.	PUNCT	PUNCT	✓

--- Sample Sentence 5 ---

Word	Predicted Tag	Actual Tag	Correct?
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OSASUNAK	PROP	PROP	✓
ezin	NOUN	NOUN	✓
izan	VERB	VERB	✓
zuen	AUX	AUX	✓
<unk>	NOUN	NOUN	✓
lortu	VERB	VERB	✓
<unk>	NOUN	PROP	✗
,	PUNCT	PUNCT	✓
<unk>	PROP	NOUN	✗
<unk>	NOUN	NOUN	✓
<unk>	NOUN	NOUN	✓
gora	ADP	ADP	✓
jarritako	VERB	VERB	✓
partiduan	NOUN	NOUN	✓
.	PUNCT	PUNCT	✓

🧠 Analysis of Sample POS Tagging Results:

Total words analyzed in samples: 92

Correct predictions in samples: 75

Incorrect predictions in samples: 17

Sample Accuracy: 81.52%

--- Performance on Unknown (<unk>) Words ---

Total <unk> words in samples: 24

Correct <unk> predictions: 12

Incorrect <unk> predictions: 12

Accuracy on <unk> words: 50.00%

Observation: The model shows some ability to guess tags for unknown words, which is good.

--- Common Tagging Errors (Predicted -> Actual) ---

- Predicted 'NOUN' but was actually 'PROP': 4 times
- Predicted 'NOUN' but was actually 'VERB': 3 times
- Predicted 'ADJ' but was actually 'NOUN': 3 times
- Predicted 'NOUN' but was actually 'ADJ': 2 times
- Predicted 'VERB' but was actually 'AUX': 1 times

Observation: Specific tag confusions indicate areas for model refinement or more diverse training data for those tags.

--- Overall Sample Quality Assessment ---

Conclusion: The sample predictions are generally good, with some minor errors. The model performs solidly.

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Python 3 (ipykernel) | Idle

Mode: Command

Ln 1, Col 1

Tagger_Using_Folder.ipynb

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