

test

December 10, 2025

1 Leg 2: News/Headline Model Training (Apple Silicon Optimized)

This notebook is an optimized version of `02_train_leg2_news.ipynb` tailored for Apple Silicon (M-series Chips, e.g., M4 Max).

Optimizations: 1. **Device:** Uses `mps` (Metal Performance Shaders) for GPU acceleration. 2. **Batch Size:** Increased to 128 (Leveraging high RAM/VRAM). 3. **Epochs:** Increased to 10 (Faster training allows for more iterations). 4. **Data Loading:** Increased `num_workers` to 8 and enabled `pin_memory`.

Workflow: 1. Load preprocessed news data. 2. Wrap the PyTorch model (`Leg2HANWrapper`) with MPS support. 3. Run Walk-Forward Cross-Validation. 4. Save raw OOF predictions (`../data/leg2_oof_preds.pkl`). 5. Evaluate raw performance.

```
[1]: import sys
import os
from pathlib import Path
import numpy as np
import pandas as pd
import torch
import torch.nn as nn
import torch.optim as optim
from torch.utils.data import DataLoader
import ast
import matplotlib.pyplot as plt
import seaborn as sns
from sklearn.metrics import mean_squared_error
from scipy.stats import pearsonr, spearmanr

# Add source to path for imports
current_dir = Path(os.getcwd())
src_path = current_dir.parent / 'src'
if str(src_path) not in sys.path:
    sys.path.append(str(src_path))

# Project Imports
from models.HAN_12 import FinberthHAN
```

```

from data.loaders import NewsDataset, han_collate_fn
from utils.cv import generate_yearly_oof

if torch.backends.mps.is_available():
    DEVICE = torch.device("mps")
    print("Metal acceleration")
elif torch.cuda.is_available():
    DEVICE = torch.device("cuda")
    print("Using CUDA acceleration")
else:
    DEVICE = torch.device("cpu")
    print("Using CPU")

SEED = 42
BATCH_SIZE = 128
EPOCHS = 10
LR = 1e-4
MAX_GRAD_NORM = 1.0
NUM_WORKERS = 8
PIN_MEMORY = True
# Set seeds
torch.manual_seed(SEED)
np.random.seed(SEED)

print(f"Device: {DEVICE}")
print(f"Batch Size: {BATCH_SIZE}")
print(f"Epochs: {EPOCHS}")

```

```

/Users/nchavez/Projects/school/Classes/COMP647DeepLearning/multimodal-eq-
sizing/venv/lib/python3.13/site-packages/tqdm/auto.py:21: TqdmWarning: IPProgress
not found. Please update jupyter and ipywidgets. See
https://ipywidgets.readthedocs.io/en/stable/user_install.html
    from .autonotebook import tqdm as notebook_tqdm

Metal acceleration
Device: mps
Batch Size: 128
Epochs: 10

```

1.1 1. Define Model Wrapper (Optimized)

We update the wrapper to use `pin_memory` and `NUM_WORKERS` in the `DataLoader`.

```

[2]: class Leg2HANWrapper:
    """
    Scikit-learn compatible wrapper for the FinbertHAN PyTorch model
    Produces raw regression outputs
    Optimized for Apple Silicon via DataLoader params

```

```

"""
def __init__(self,
             batch_size=BATCH_SIZE,
             epochs=EPOCHS,
             lr=LR,
             device=DEVICE):
    self.batch_size = batch_size
    self.epochs = epochs
    self.lr = lr
    self.device = device
    self.model = None
    self.train_loss_history = []

def fit(self, X: pd.DataFrame, y: pd.Series = None):
    # Prepare data
    train_df = X.copy()
    if y is not None:
        train_df['target'] = y.values

    dataset = NewsDataset(train_df)
    loader = DataLoader(
        dataset,
        batch_size=self.batch_size,
        shuffle=True,
        collate_fn=han_collate_fn,
        num_workers=NUM_WORKERS,
        pin_memory=PIN_MEMORY
    )

    self.model = FinbertHAN(aux_dim=4).to(self.device)
    optimizer = optim.AdamW(filter(lambda p: p.requires_grad, self.model.
parameters()), lr=self.lr)
    criterion = nn.MSELoss()

    self.model.train()
    self.train_loss_history = []

    for epoch in range(self.epochs):
        epoch_loss = 0.0
        count = 0
        for batch in loader:
            input_ids = batch['input_ids'].to(self.device)
            att_mask = batch['attention_mask'].to(self.device)
            doc_lens = batch['doc_lengths']
            time_gaps = batch['time_gaps'].to(self.device)
            aux_feats = batch['aux_features'].to(self.device)
            news_mask = batch['news_mask'].to(self.device)

```

```

        targets = batch['targets'].to(self.device)

        optimizer.zero_grad()
        preds, _, _ = self.model(input_ids, att_mask, doc_lens, □
        ↵time_gaps, aux_feats, news_mask)
        loss = criterion(preds, targets)
        loss.backward()
        torch.nn.utils.clip_grad_norm_(self.model.parameters(), □
        ↵MAX_GRAD_NORM)
        optimizer.step()

        epoch_loss += loss.item() * targets.size(0)
        count += targets.size(0)

        avg_loss = epoch_loss / max(1, count)
        self.train_loss_history.append(avg_loss)
        print(f"Epoch {epoch+1}/{self.epochs} - Loss: {avg_loss:.6f}")
    return self

def predict(self, X: pd.DataFrame) -> np.ndarray:
    self.model.eval()
    test_df = X.copy()
    if 'target' not in test_df.columns:
        test_df['target'] = 0.0

    dataset = NewsDataset(test_df)
    loader = DataLoader(
        dataset,
        batch_size=self.batch_size,
        shuffle=False,
        collate_fn=han_collate_fn,
        num_workers=NUM_WORKERS,
        pin_memory=PIN_MEMORY
    )

    all_preds = []
    with torch.no_grad():
        for batch in loader:
            input_ids = batch['input_ids'].to(self.device)
            att_mask = batch['attention_mask'].to(self.device)
            doc_lens = batch['doc_lengths']
            time_gaps = batch['time_gaps'].to(self.device)
            aux_feats = batch['aux_features'].to(self.device)
            news_mask = batch['news_mask'].to(self.device)
            preds, _, _ = self.model(input_ids, att_mask, doc_lens, □
            ↵time_gaps, aux_feats, news_mask)
            all_preds.append(preds.cpu().numpy())

```

```
    return np.concatenate(all_preds).flatten()
```

1.2 2. Load Data

Same loading logic as the standard notebook.

```
[3]: NEWS_PATH = "../src/data/datasets/filtered_news_dataset.csv"
PRICES_PATH = "../src/data/datasets/prices_dataset.csv"

def robust_literal_eval(val):
    if pd.isna(val) or val == "" or str(val).lower() == 'nan':
        return []
    try:
        return ast.literal_eval(val)
    except (ValueError, SyntaxError):
        return [str(val)]

if os.path.exists(NEWS_PATH):
    print(f"Loading News from {NEWS_PATH}...")
    news_converters = {
        'sentences': robust_literal_eval,
        'Article_title': robust_literal_eval,
        'entities': robust_literal_eval,
        'entities_today': robust_literal_eval
    }
    df_news = pd.read_csv(NEWS_PATH, converters=news_converters)

    if 'sentences' in df_news.columns and 'Article_title' not in df_news.columns:
        df_news = df_news.rename(columns={'sentences': 'Article_title'})
    if 'Stock_symbol' in df_news.columns and 'ticker' not in df_news.columns:
        df_news = df_news.rename(columns={'Stock_symbol': 'ticker'})
    df_news['Date'] = pd.to_datetime(df_news['Date'], utc=True)
    print(f"News Loaded. Shape: {df_news.shape}.")
else:
    raise FileNotFoundError(f"News file not found at {NEWS_PATH}")

if os.path.exists(PRICES_PATH):
    print(f"Loading Prices from {PRICES_PATH}...")
    df_prices = pd.read_csv(PRICES_PATH)
    df_prices['Date'] = pd.to_datetime(df_prices['Date'], utc=True)
    print(f"Prices Loaded. Shape: {df_prices.shape}.")
else:
    raise FileNotFoundError(f"Prices file not found at {PRICES_PATH}")
```

```

df_full = pd.merge(df_prices, df_news, on=['Date', 'ticker'], how='left')
df_full = df_full.sort_values('Date').reset_index(drop=True)

target_col = 'excess_return'

if target_col in df_full.columns:
    df_full = df_full.dropna(subset=[target_col])
    X = df_full.drop(columns=[target_col])
    y = df_full[target_col]
    dates = df_full['Date']
    print(f"Data Ready. Final Shape: {df_full.shape}")
else:
    raise KeyError(f"Target column '{target_col}' not found.")

```

Loading News from ../src/data/datasets/filtered_news_dataset.csv...
 News Loaded. Shape: (802424, 4).
 Loading Prices from ../src/data/datasets/prices_dataset.csv...
 Prices Loaded. Shape: (391686, 30)
 Data Ready. Final Shape: (524232, 32)

1.3 3. Walk-Forward Cross Validation (OOF Generation)

Uses generate_yearly_oof with the optimized factory.

```

[4]: # Define the optimized model factory
def model_factory():
    return Leg2HANWrapper(batch_size=BATCH_SIZE, epochs=EPOCHS, lr=LR, device=DEVICE)

# Run OOF Generation
# We rely on the speedup inside the model training for performance gains
if 'X' in locals():
    oof_preds_raw, oof_targets, fold_stats = generate_yearly_oof(
        model_factory=model_factory,
        X=X,
        y=y,
        dates=dates,
        min_train_years=2,
        n_jobs=1
    )

    print(f"OOF Prediction Complete. Generated {len(oof_preds_raw)} predictions.")
    print(pd.DataFrame(fold_stats))

```

Starting yearly walk-forward CV: 7 folds scheduled
 First fold val year: 2012
 Last fold val year: 2018

```
Some weights of RobertaModel were not initialized from the model checkpoint at
mrm8488/distilroberta-finetuned-financial-news-sentiment-analysis and are newly
initialized: ['pooler.dense.bias', 'pooler.dense.weight']
You should probably TRAIN this model on a down-stream task to be able to use it
for predictions and inference.
/Users/nchavez/Projects/school/Classes/COMP647DeepLearning/multimodal-eq-
sizing/venv/lib/python3.13/site-packages/torch/utils/data/dataloader.py:692:
UserWarning: 'pin_memory' argument is set as true but not supported on MPS now,
device pinned memory won't be used.

    warnings.warn(warn_msg)

huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
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false)
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Epoch 1/10 - Loss: 0.001143

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

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To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

Epoch 2/10 - Loss: 0.000533

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
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To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
Epoch 3/10 - Loss: 0.000387  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
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huggingface/tokenizers: The current process just got forked, after parallelism  
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To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

Epoch 4/10 - Loss: 0.000320

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

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huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

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To disable this warning, you can either:

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Epoch 5/10 - Loss: 0.000287

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

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```
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- Avoid using `tokenizers` before the fork if possible
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huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

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huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

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- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
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huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

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huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

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huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

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- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

Epoch 8/10 - Loss: 0.000256

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible

```
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...
```

```

To disable this warning, you can either:
  - Avoid using `tokenizers` before the fork if possible
  - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
  - Avoid using `tokenizers` before the fork if possible
  - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
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  - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
  - Avoid using `tokenizers` before the fork if possible
  - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
  - Avoid using `tokenizers` before the fork if possible
  - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
Epoch 10/10 - Loss: 0.000250
/Users/nchavez/Projects/school/Classes/COMP647DeepLearning/multimodal-eq-sizing/venv/lib/python3.13/site-packages/torch/utils/data/dataloader.py:692: UserWarning: 'pin_memory' argument is set as true but not supported on MPS now, device pinned memory won't be used.
    warnings.warn(warn_msg)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
  - Avoid using `tokenizers` before the fork if possible
  - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
  - Avoid using `tokenizers` before the fork if possible
  - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism

```

```
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
Some weights of RobertaModel were not initialized from the model checkpoint at mrm8488/distilroberta-finetuned-financial-news-sentiment-analysis and are newly initialized: ['pooler.dense.bias', 'pooler.dense.weight']
You should probably TRAIN this model on a down-stream task to be able to use it for predictions and inference.
/Users/nchavez/Projects/school/Classes/COMP647DeepLearning/multimodal-eq-sizing/venv/lib/python3.13/site-packages/torch/utils/data/dataloader.py:692:
UserWarning: 'pin_memory' argument is set as true but not supported on MPS now, device pinned memory won't be used.
    warnings.warn(warn_msg)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
```

```
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
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huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
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To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
```

Epoch 1/10 - Loss: 0.001083

huggingface/tokenizers: The current process just got forked, after parallelism

has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

Epoch 2/10 - Loss: 0.000427

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible

```
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
Epoch 3/10 - Loss: 0.000313  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
- Avoid using `tokenizers` before the fork if possible  
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
- Avoid using `tokenizers` before the fork if possible  
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
- Avoid using `tokenizers` before the fork if possible  
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
- Avoid using `tokenizers` before the fork if possible  
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
- Avoid using `tokenizers` before the fork if possible  
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
- Avoid using `tokenizers` before the fork if possible  
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...
```

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

Epoch 4/10 - Loss: 0.000272

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

Epoch 5/10 - Loss: 0.000256

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible

```
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
- Avoid using `tokenizers` before the fork if possible  
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
Epoch 6/10 - Loss: 0.000248  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
- Avoid using `tokenizers` before the fork if possible  
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
- Avoid using `tokenizers` before the fork if possible  
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
- Avoid using `tokenizers` before the fork if possible  
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
- Avoid using `tokenizers` before the fork if possible  
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
- Avoid using `tokenizers` before the fork if possible  
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...
```

```
To disable this warning, you can either:
  - Avoid using `tokenizers` before the fork if possible
  - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
  - Avoid using `tokenizers` before the fork if possible
  - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
Epoch 7/10 - Loss: 0.000245
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
  - Avoid using `tokenizers` before the fork if possible
  - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
  - Avoid using `tokenizers` before the fork if possible
  - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
  - Avoid using `tokenizers` before the fork if possible
  - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
  - Avoid using `tokenizers` before the fork if possible
  - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
  - Avoid using `tokenizers` before the fork if possible
  - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
  - Avoid using `tokenizers` before the fork if possible
  - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
```

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

Epoch 8/10 - Loss: 0.000243

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible

```
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
Epoch 9/10 - Loss: 0.000241  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...
```

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

Epoch 10/10 - Loss: 0.000241

```
/Users/nchavez/Projects/school/Classes/COMP647DeepLearning/multimodal-eq-sizing/venv/lib/python3.13/site-packages/torch/utils/data/dataloader.py:692: UserWarning: 'pin_memory' argument is set as true but not supported on MPS now, device pinned memory won't be used.  
    warnings.warn(warn_msg)  
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:



- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)



huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...



To disable this warning, you can either:



- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)



huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...



To disable this warning, you can either:



- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)



huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...



To disable this warning, you can either:



- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)



huggingface/tokenizers: The current process just got forked, after parallelism


```

```
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
Some weights of RobertaModel were not initialized from the model checkpoint at mrm8488/distilroberta-finetuned-financial-news-sentiment-analysis and are newly initialized: ['pooler.dense.bias', 'pooler.dense.weight']
You should probably TRAIN this model on a down-stream task to be able to use it for predictions and inference.
/Users/nchavez/Projects/school/Classes/COMP647DeepLearning/multimodal-eq-sizing/venv/lib/python3.13/site-packages/torch/utils/data/dataloader.py:692:
UserWarning: 'pin_memory' argument is set as true but not supported on MPS now, device pinned memory won't be used.
    warnings.warn(warn_msg)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
```

```
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
Epoch 1/10 - Loss: 0.001031
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism
```

has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

Epoch 2/10 - Loss: 0.000333

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

```
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
Epoch 3/10 - Loss: 0.000263

huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
```

```
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
Epoch 4/10 - Loss: 0.000241
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism
```

has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

Epoch 5/10 - Loss: 0.000234

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

```
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
```

Epoch 6/10 - Loss: 0.000231

```
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
```

```
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
```

Epoch 7/10 - Loss: 0.000230

huggingface/tokenizers: The current process just got forked, after parallelism

has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

Epoch 8/10 - Loss: 0.000229

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible

```
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
Epoch 9/10 - Loss: 0.000228  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
- Avoid using `tokenizers` before the fork if possible  
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
- Avoid using `tokenizers` before the fork if possible  
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
- Avoid using `tokenizers` before the fork if possible  
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
- Avoid using `tokenizers` before the fork if possible  
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
- Avoid using `tokenizers` before the fork if possible  
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
- Avoid using `tokenizers` before the fork if possible  
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...
```

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

Epoch 10/10 - Loss: 0.000228

```
/Users/nchavez/Projects/school/Classes/COMP647DeepLearning/multimodal-eq-sizing/venv/lib/python3.13/site-packages/torch/utils/data/dataloader.py:692:
UserWarning: 'pin_memory' argument is set as true but not supported on MPS now,
device pinned memory won't be used.

    warnings.warn(warn_msg)

huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
```

has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

Some weights of RobertaModel were not initialized from the model checkpoint at mrm8488/distilroberta-finetuned-financial-news-sentiment-analysis and are newly initialized: ['pooler.dense.bias', 'pooler.dense.weight']
You should probably TRAIN this model on a down-stream task to be able to use it for predictions and inference.

```
/Users/nchavez/Projects/school/Classes/COMP647DeepLearning/multimodal-eq-sizing/venv/lib/python3.13/site-packages/torch/utils/data/dataloader.py:692:  
UserWarning: 'pin_memory' argument is set as true but not supported on MPS now,  
device pinned memory won't be used.  
    warnings.warn(warn_msg)
```

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
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- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

```
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huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
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huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
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- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
Epoch 1/10 - Loss: 0.001171
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
```

has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

Epoch 2/10 - Loss: 0.000301

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

```
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
Epoch 3/10 - Loss: 0.000242

huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
```

```
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
Epoch 4/10 - Loss: 0.000229

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
```

has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

Epoch 5/10 - Loss: 0.000225

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

```
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
Epoch 6/10 - Loss: 0.000223

huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
```

```
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
Epoch 7/10 - Loss: 0.000223
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism
```

has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

Epoch 8/10 - Loss: 0.000222

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

```
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
Epoch 9/10 - Loss: 0.000222

huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
```

```
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
```

Epoch 10/10 - Loss: 0.000222

```
/Users/nchavez/Projects/school/Classes/COMP647DeepLearning/multimodal-eq-sizing/venv/lib/python3.13/site-packages/torch/utils/data/dataloader.py:692: UserWarning: 'pin_memory' argument is set as true but not supported on MPS now, device pinned memory won't be used.
    warnings.warn(warn_msg)
```

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

Some weights of RobertaModel were not initialized from the model checkpoint at mrm8488/distilroberta-finetuned-financial-news-sentiment-analysis and are newly

```
initialized: ['pooler.dense.bias', 'pooler.dense.weight']
You should probably TRAIN this model on a down-stream task to be able to use it
for predictions and inference.
/Users/nchavez/Projects/school/Classes/COMP647DeepLearning/multimodal-eq-
sizing/venv/lib/python3.13/site-packages/torch/utils/data/dataloader.py:692:
UserWarning: 'pin_memory' argument is set as true but not supported on MPS now,
device pinned memory won't be used.

    warnings.warn(warn_msg)

huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
```

```
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
- Avoid using `tokenizers` before the fork if possible  
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
Epoch 1/10 - Loss: 0.001125  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
- Avoid using `tokenizers` before the fork if possible  
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
- Avoid using `tokenizers` before the fork if possible  
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
- Avoid using `tokenizers` before the fork if possible  
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
- Avoid using `tokenizers` before the fork if possible  
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
- Avoid using `tokenizers` before the fork if possible  
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...
```

```
To disable this warning, you can either:
  - Avoid using `tokenizers` before the fork if possible
  - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
  - Avoid using `tokenizers` before the fork if possible
  - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
Epoch 2/10 - Loss: 0.000285
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
  - Avoid using `tokenizers` before the fork if possible
  - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
  - Avoid using `tokenizers` before the fork if possible
  - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
  - Avoid using `tokenizers` before the fork if possible
  - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
  - Avoid using `tokenizers` before the fork if possible
  - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
  - Avoid using `tokenizers` before the fork if possible
  - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
  - Avoid using `tokenizers` before the fork if possible
  - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
```

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

Epoch 3/10 - Loss: 0.000244

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible

```
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
Epoch 4/10 - Loss: 0.000236  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...
```

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

Epoch 5/10 - Loss: 0.000234

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

Epoch 6/10 - Loss: 0.000233

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible

```
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...
```

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

Epoch 9/10 - Loss: 0.000233

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible

```
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
Epoch 10/10 - Loss: 0.000233  
  
/Users/nchavez/Projects/school/Classes/COMP647DeepLearning/multimodal-eq-  
sizing/venv/lib/python3.13/site-packages/torch/utils/data/dataloader.py:692:  
UserWarning: 'pin_memory' argument is set as true but not supported on MPS now,  
device pinned memory won't be used.  
    warnings.warn(warn_msg)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:
```

```

    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
Some weights of RobertaModel were not initialized from the model checkpoint at mrm8488/distilroberta-finetuned-financial-news-sentiment-analysis and are newly initialized: ['pooler.dense.bias', 'pooler.dense.weight']
You should probably TRAIN this model on a down-stream task to be able to use it for predictions and inference.
/Users/nchavez/Projects/school/Classes/COMP647DeepLearning/multimodal-eq-sizing/venv/lib/python3.13/site-packages/torch/utils/data/dataloader.py:692:
UserWarning: 'pin_memory' argument is set as true but not supported on MPS now, device pinned memory won't be used.

    warnings.warn(warn_msg)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

```

```
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
```

Epoch 1/10 - Loss: 0.000856

```
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
```

```
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
```

Epoch 2/10 - Loss: 0.000277

huggingface/tokenizers: The current process just got forked, after parallelism

has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

Epoch 3/10 - Loss: 0.000257

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible

```
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
Epoch 4/10 - Loss: 0.000254  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
- Avoid using `tokenizers` before the fork if possible  
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
- Avoid using `tokenizers` before the fork if possible  
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
- Avoid using `tokenizers` before the fork if possible  
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
- Avoid using `tokenizers` before the fork if possible  
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
- Avoid using `tokenizers` before the fork if possible  
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
- Avoid using `tokenizers` before the fork if possible  
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...
```

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

Epoch 5/10 - Loss: 0.000253

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

Epoch 6/10 - Loss: 0.000253

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible

```
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
Epoch 7/10 - Loss: 0.000252  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...
```

```
To disable this warning, you can either:
  - Avoid using `tokenizers` before the fork if possible
  - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
  - Avoid using `tokenizers` before the fork if possible
  - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
Epoch 8/10 - Loss: 0.000252
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
  - Avoid using `tokenizers` before the fork if possible
  - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
  - Avoid using `tokenizers` before the fork if possible
  - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
  - Avoid using `tokenizers` before the fork if possible
  - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
  - Avoid using `tokenizers` before the fork if possible
  - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
  - Avoid using `tokenizers` before the fork if possible
  - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
  - Avoid using `tokenizers` before the fork if possible
  - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
```

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

Epoch 9/10 - Loss: 0.000252

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible

```
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
Epoch 10/10 - Loss: 0.000252  
  
/Users/nchavez/Projects/school/Classes/COMP647DeepLearning/multimodal-eq-  
sizing/venv/lib/python3.13/site-packages/torch/utils/data/dataloader.py:692:  
UserWarning: 'pin_memory' argument is set as true but not supported on MPS now,  
device pinned memory won't be used.  
    warnings.warn(warn_msg)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:
```

```
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
Some weights of RobertaModel were not initialized from the model checkpoint at mrm8488/distilroberta-finetuned-financial-news-sentiment-analysis and are newly initialized: ['pooler.dense.bias', 'pooler.dense.weight']
You should probably TRAIN this model on a down-stream task to be able to use it for predictions and inference.
/Users/nchavez/Projects/school/Classes/COMP647DeepLearning/multimodal-eq-sizing/venv/lib/python3.13/site-packages/torch/utils/data/dataloader.py:692: UserWarning: 'pin_memory' argument is set as true but not supported on MPS now, device pinned memory won't be used.
    warnings.warn(warn_msg)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |
```

```
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
Epoch 1/10 - Loss: 0.000997

huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
```

```
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
Epoch 2/10 - Loss: 0.000275

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism
```

has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

Epoch 3/10 - Loss: 0.000260

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

```
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
Epoch 4/10 - Loss: 0.000259
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
```

```
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
Epoch 5/10 - Loss: 0.000258

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism
```

has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

Epoch 6/10 - Loss: 0.000258

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

```
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
    - Avoid using `tokenizers` before the fork if possible
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)
```

Epoch 7/10 - Loss: 0.000258

```
huggingface/tokenizers: The current process just got forked, after parallelism
has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
```

```
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
```

Epoch 8/10 - Loss: 0.000257

huggingface/tokenizers: The current process just got forked, after parallelism

has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

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To disable this warning, you can either:

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huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

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huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

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huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

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- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

Epoch 9/10 - Loss: 0.000257

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

- Avoid using `tokenizers` before the fork if possible

```
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
Epoch 10/10 - Loss: 0.000257  
/Users/nchavez/Projects/school/Classes/COMP647DeepLearning/multimodal-eq-  
sizing/venv/lib/python3.13/site-packages/torch/utils/dataloader.py:692:  
UserWarning: 'pin_memory' argument is set as true but not supported on MPS now,  
device pinned memory won't be used.  
    warnings.warn(warn_msg)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:  
    - Avoid using `tokenizers` before the fork if possible  
    - Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true |  
false)  
huggingface/tokenizers: The current process just got forked, after parallelism  
has already been used. Disabling parallelism to avoid deadlocks...  
To disable this warning, you can either:
```

```
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
```

huggingface/tokenizers: The current process just got forked, after parallelism has already been used. Disabling parallelism to avoid deadlocks...

To disable this warning, you can either:

```
- Avoid using `tokenizers` before the fork if possible
- Explicitly set the environment variable TOKENIZERS_PARALLELISM=(true | false)
```

OOF Prediction Complete. Generated 438215 predictions.

	val_year	train_years	n_train	n_val
0	2012	2010-2011	86017	46362
1	2013	2010-2012	132379	50902
2	2014	2010-2013	183281	55653
3	2015	2010-2014	238934	59625
4	2016	2010-2015	298559	67463
5	2017	2010-2016	366022	81010
6	2018	2010-2017	447032	77200

1.4 4. Save Raw OOF Predictions

Saves to `../data/leg2_oof_preds.pkl`. Warning: This will overwrite the file if you ran the other notebook recently.

```
[5]: if 'oof_preds_raw' in locals() and len(oof_preds_raw) > 0:
    # 1. Reconstruct Metadata (Date, ticker)
    unique_years = sorted(dates.dt.year.unique())
    min_train_years = 2
    val_years = unique_years[min_train_years:]

    oof_dfs = []

    for val_year in val_years:
        val_mask = dates.dt.year == val_year
        subset = df_full.loc[val_mask, ['Date', 'ticker', target_col]].copy()
        oof_dfs.append(subset)

    oof_df = pd.concat(oof_dfs)
    oof_df['prediction'] = oof_preds_raw

    print(f"OOF Metadata Shape: {oof_df.shape}")
    print(f"OOF Preds Length: {len(oof_preds_raw)}")
    assert len(oof_df) == len(oof_preds_raw), "Mismatch between OOF metadata and predictions length"

    # 3. Save
    SAVE_PATH = "../data/leg2_oof_preds.pkl"
```

```

os.makedirs(os.path.dirname(SAVE_PATH), exist_ok=True)

oof_df.to_pickle(SAVE_PATH)
print(f"Saved OOF predictions to: {SAVE_PATH}")
print(oof_df.head())

```

OOF Metadata Shape: (438215, 4)
OOF Preds Length: 438215
Saved OOF predictions to: ../data/leg2_oof_preds.pkl

	Date	ticker	excess_return	prediction
86017	2012-01-03 00:00:00+00:00	EA	0.013912	-0.000000
86018	2012-01-03 00:00:00+00:00	CRM	-0.026569	-0.002682
86019	2012-01-03 00:00:00+00:00	TMUS	0.055907	-0.000000
86020	2012-01-03 00:00:00+00:00	PAYX	-0.005790	-0.000000
86021	2012-01-03 00:00:00+00:00	PSA	-0.009011	-0.000000

1.5 5. Raw Performance Metrics

```

[6]: if 'oof_preds_raw' in locals() and len(oof_preds_raw) > 0:
    mse_raw = mean_squared_error(oof_targets, oof_preds_raw)
    ic_raw, _ = pearsonr(oof_preds_raw, oof_targets)

    print(f"Leg 2 Results")
    print(f"MSE Raw: {mse_raw:.6f}")
    print(f"IC Raw: {ic_raw:.4f}")

    plt.figure(figsize=(8, 6))
    indices = np.random.choice(len(oof_targets), min(5000, len(oof_targets)), replace=False)

    sns.regplot(x=oof_preds_raw[indices], y=oof_targets[indices],
                scatter_kws={'alpha':0.3, 's': 10}, line_kws={'color':'red'})
    plt.title(f"Raw Scores vs Excess Return (IC={ic_raw:.3f})")
    plt.xlabel("Raw NN Output")
    plt.ylabel("True Excess Return")
    plt.show()

```

Leg 2 Results
MSE Raw: 0.000271
IC Raw: 0.0303

