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Step 40: Count predicted dementia and control samples

[ ] dementia_count = np.sum(binary_preds)
    control_count = len(binary_preds) - dementia_count

Step 41: Print prediction summary for unlabeled data

[ ] print(f"Dementia: {dementia_count}, Control: {control_count}")

Dementia: 244, Control: 58

Step 42: Calculate pseudo-labeling confidence accuracy

[ ] confident_preds = (predictions > 0.6) | (predictions < 0.4)
    pseudo_accuracy = np.sum(confident_preds) / len(predictions)

Step 43: Print pseudo accuracy percentage

[ ] print(f"Pseudo Accuracy (confident predictions): {pseudo_accuracy * 100:.2f}%")

Pseudo Accuracy (confident predictions): 87.75%
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Figure 2. *Unlabeled prediction analysis using pseudo-labeling strategy.*

This figure presents the classification summary for unlabeled speech samples using confidence-based pseudo-labeling. A total of 244 samples were classified as dementia and 58 as control. Pseudo-labeling confidence accuracy is computed using a confidence threshold (predictions > 0.6 or < 0.4), achieving an overall pseudo accuracy of 87.75%.