

Project metrics

2025-02-19 00:15:31,803 - __main__ - DEBUG - **Combination 1/21**

2025-02-19 00:15:34,165 - __main__ - DEBUG - train_model() uses mps device

2025-02-19 00:15:34,184 - __main__ - DEBUG - From scratch: **True**

2025-02-19 00:15:34,184 - __main__ - DEBUG - Source folder: **../Data/raw**

2025-02-19 00:15:34,184 - __main__ - DEBUG - New dataset folder: **None**

2025-02-19 00:15:34,185 - __main__ - DEBUG - Total number of elements for training - 1770, validation - 252, testing - 505

2025-02-19 00:15:34,187 - __main__ - DEBUG - Learning Rate: **0.004**, LR Decoy: **0.85**, Batch size: **24**

2025-02-19 00:17:11,251 - __main__ - DEBUG - Epoch [1/10]: Train Loss: **0.6288**, Train Acc: 78.77%, Val Loss: **0.3728**, Val Acc: 87.08%, Time: 97 sec

2025-02-19 00:18:41,823 - __main__ - DEBUG - Epoch [2/10]: Train Loss: **0.3728**, Train Acc: 86.76%, Val Loss: **0.3175**, Val Acc: 89.17%, Time: 91 sec

2025-02-19 00:20:13,954 - __main__ - DEBUG - Epoch [3/10]: Train Loss: **0.3189**, Train Acc: 88.64%, Val Loss: **0.2942**, Val Acc: 90.42%, Time: 92 sec

2025-02-19 00:21:54,401 - __main__ - DEBUG - Epoch [4/10]: Train Loss: **0.2920**, Train Acc: 90.24%, Val Loss: **0.3075**, Val Acc: 90.00%, Time: 100 sec

2025-02-19 00:23:38,121 - __main__ - DEBUG - Epoch [5/10]: Train Loss: **0.2673**, Train Acc: 90.41%, Val Loss: **0.2640**, Val Acc: 92.92%, Time: 104 sec

2025-02-19 00:25:22,810 - __main__ - DEBUG - Epoch [6/10]: Train Loss: **0.2530**, Train Acc: 91.61%, Val Loss: **0.2664**, Val Acc: 92.08%, Time: 105 sec

2025-02-19 00:26:53,146 - __main__ - DEBUG - Epoch [7/10]: Train Loss: **0.2500**, Train Acc: 91.38%, Val Loss: **0.3166**, Val Acc: 90.42%, Time: 90 sec

2025-02-19 00:28:25,930 - __main__ - DEBUG - Epoch [8/10]: Train Loss: **0.2639**, Train Acc: 90.87%, Val Loss: **0.2682**, Val Acc: 92.08%, Time: 93 sec

2025-02-19 00:29:58,194 - __main__ - DEBUG - Epoch [9/10]: Train Loss: **0.2211**, Train Acc: 92.64%, Val Loss: **0.2722**, Val Acc: 92.92%, Time: 92 sec

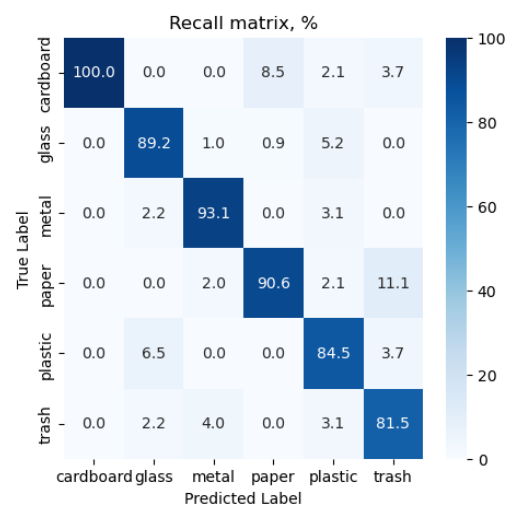
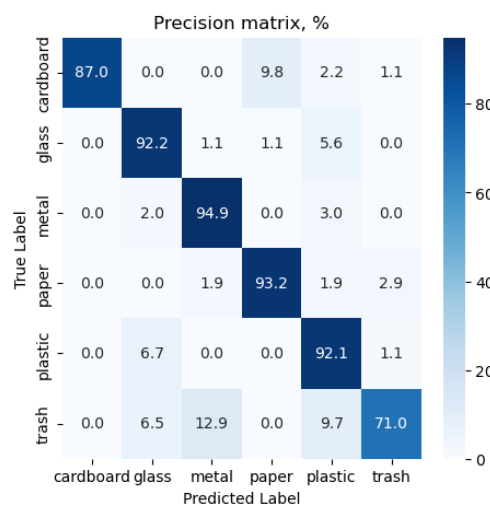
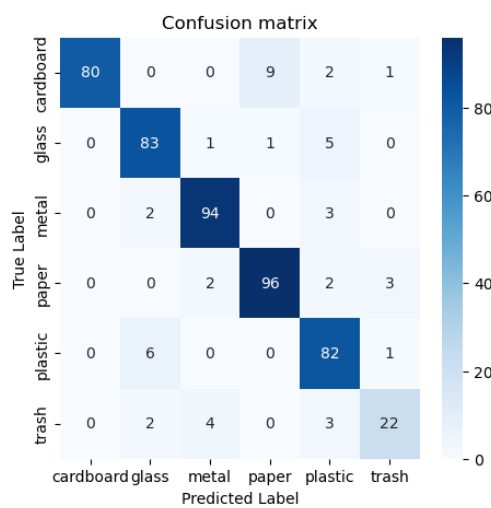
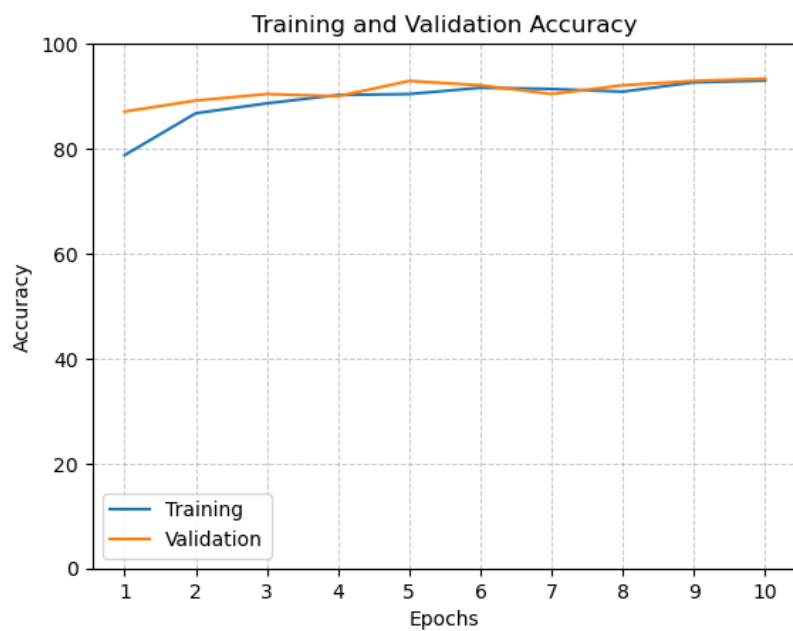
2025-02-19 00:31:33,733 - __main__ - DEBUG - Epoch [10/10]: Train Loss: **0.2130**, Train Acc: 92.98%, Val Loss: **0.2613**, Val Acc: 93.33%, Time: 96 sec

2025-02-19 00:32:02,887 - __main__ - DEBUG - Trial: 1, Test Loss: 0.2494, Test Acc: 90.67%, Avg Time/Image: 0.011 sec

2025-02-19 00:32:02,898 - __main__ - INFO - Final Test: Loss: **0.2494**, Acc: **90.67%**

2025-02-19 00:32:02,909 - __main__ - INFO - Mean processing time per image: 0.011 sec

2025-02-19 00:33:02,949 - __main__ - DEBUG - Total cycle elapsed time: 17 min 31 sec



2025-02-19 00:33:03,747 - __main__ - DEBUG - **Combination 2/21**

2025-02-19 00:33:06,179 - __main__ - DEBUG - train_model() uses mps device

2025-02-19 00:33:06,181 - __main__ - DEBUG - From scratch: **True**

2025-02-19 00:33:06,181 - __main__ - DEBUG - Source folder: **../Data/raw**

2025-02-19 00:33:06,182 - __main__ - DEBUG - New dataset folder: **None**

2025-02-19 00:33:06,182 - __main__ - DEBUG - Total number of elements for training - 1770, validation - 252, testing - 505

2025-02-19 00:33:06,183 - __main__ - DEBUG - Learning Rate: **0.003**, LR Decoy: **0.85**, Batch size: **24**

2025-02-19 00:34:42,984 - __main__ - DEBUG - Epoch [1/10]: Train Loss: **0.6697**, Train Acc: 77.63%, Val Loss: **0.3989**, Val Acc: 87.08%, Time: 97 sec

2025-02-19 00:36:15,919 - __main__ - DEBUG - Epoch [2/10]: Train Loss: **0.3897**, Train Acc: 86.99%, Val Loss: **0.3315**, Val Acc: 89.58%, Time: 93 sec

2025-02-19 00:37:45,837 - __main__ - DEBUG - Epoch [3/10]: Train Loss: **0.3269**, Train Acc: 88.98%, Val Loss: **0.3112**, Val Acc: 89.17%, Time: 90 sec

2025-02-19 00:39:15,954 - __main__ - DEBUG - Epoch [4/10]: Train Loss: **0.2964**, Train Acc: 90.47%, Val Loss: **0.2803**, Val Acc: 92.08%, Time: 90 sec

2025-02-19 00:40:57,193 - __main__ - DEBUG - Epoch [5/10]: Train Loss: **0.2730**, Train Acc: 89.95%, Val Loss: **0.2751**, Val Acc: 91.67%, Time: 101 sec

2025-02-19 00:42:43,430 - __main__ - DEBUG - Epoch [6/10]: Train Loss: **0.2541**, Train Acc: 92.07%, Val Loss: **0.2742**, Val Acc: 91.67%, Time: 106 sec

2025-02-19 00:44:29,345 - __main__ - DEBUG - Epoch [7/10]: Train Loss: **0.2548**, Train Acc: 91.95%, Val Loss: **0.2727**, Val Acc: 91.67%, Time: 106 sec

2025-02-19 00:46:04,068 - __main__ - DEBUG - Epoch [8/10]: Train Loss: **0.2582**, Train Acc: 90.81%, Val Loss: **0.2617**, Val Acc: 92.92%, Time: 95 sec

2025-02-19 00:47:31,421 - __main__ - DEBUG - Epoch [9/10]: Train Loss: **0.2293**, Train Acc: 92.29%, Val Loss: **0.2670**, Val Acc: 92.50%, Time: 87 sec

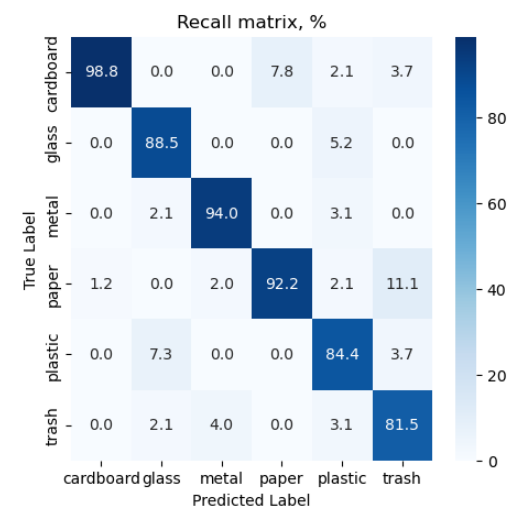
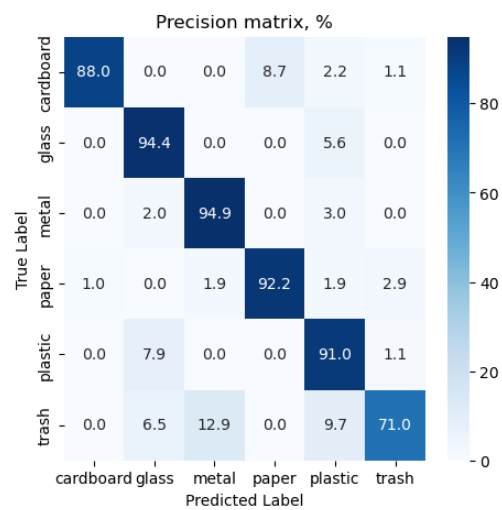
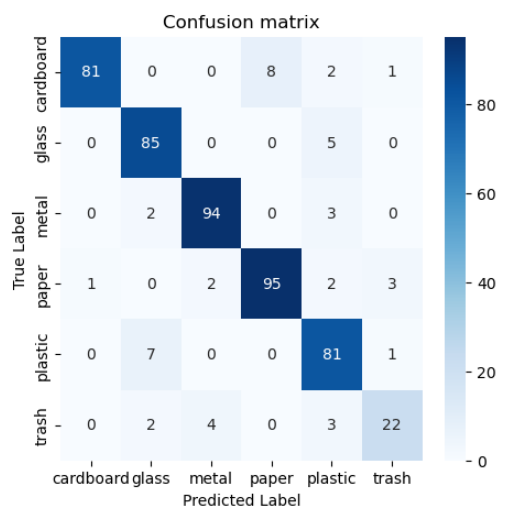
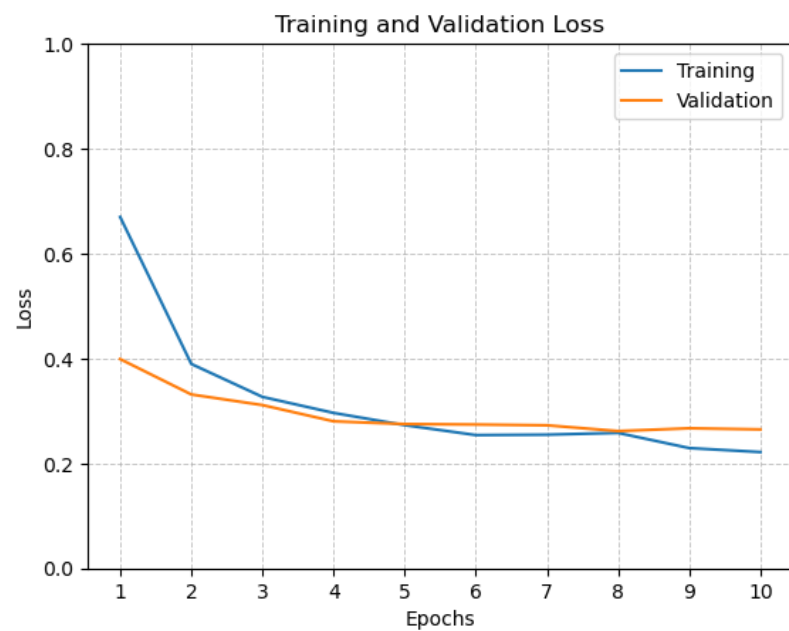
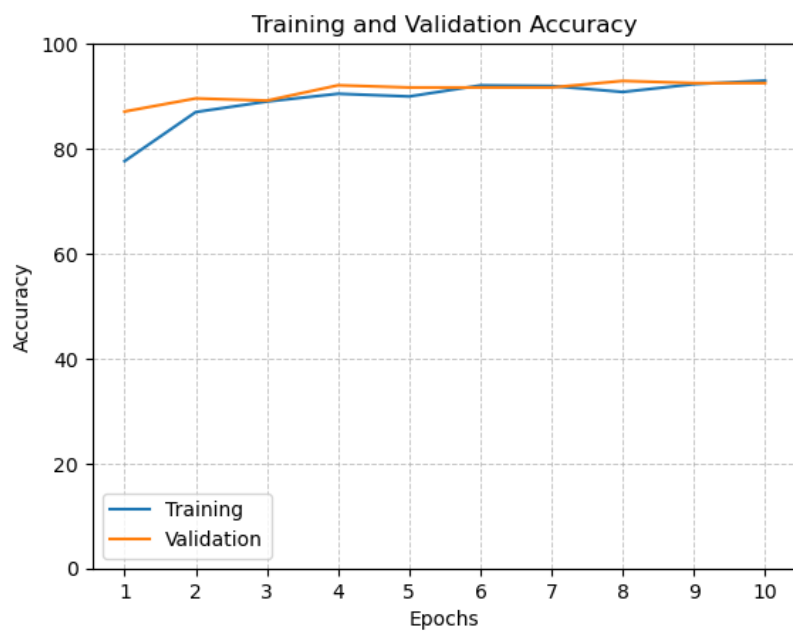
2025-02-19 00:48:58,224 - __main__ - DEBUG - Epoch [10/10]: Train Loss: **0.2217**, Train Acc: 92.98%, Val Loss: **0.2649**, Val Acc: 92.50%, Time: 87 sec

2025-02-19 00:49:26,012 - __main__ - DEBUG - Trial: 1, Test Loss: 0.2444, Test Acc: 90.87%, Avg Time/Image: 0.011 sec

2025-02-19 00:49:26,026 - __main__ - INFO - Final Test: Loss: **0.2444**, Acc: **90.87%**

2025-02-19 00:49:26,035 - __main__ - INFO - Mean processing time per image: 0.011 sec

2025-02-19 00:50:26,089 - __main__ - DEBUG - Total cycle elapsed time: 17 min 22 sec



2025-02-19 00:50:26,671 - __main__ - DEBUG - **Combination 3/21**

2025-02-19 00:50:29,047 - __main__ - DEBUG - train_model() uses mps device

2025-02-19 00:50:29,054 - __main__ - DEBUG - From scratch: **True**

2025-02-19 00:50:29,054 - __main__ - DEBUG - Source folder: **../Data/raw**

2025-02-19 00:50:29,055 - __main__ - DEBUG - New dataset folder: **None**

2025-02-19 00:50:29,055 - __main__ - DEBUG - Total number of elements for training - 1770, validation - 252, testing - 505

2025-02-19 00:50:29,056 - __main__ - DEBUG - Learning Rate: **0.00275**, LR Decoy: **0.85**, Batch size: **24**

2025-02-19 00:52:01,703 - __main__ - DEBUG - Epoch [1/10]: Train Loss: **0.6871**, Train Acc: 77.17%, Val Loss: **0.4090**, Val Acc: 86.67%, Time: 93 sec

2025-02-19 00:53:29,562 - __main__ - DEBUG - Epoch [2/10]: Train Loss: **0.3999**, Train Acc: 86.70%, Val Loss: **0.3333**, Val Acc: 88.75%, Time: 88 sec

2025-02-19 00:54:57,639 - __main__ - DEBUG - Epoch [3/10]: Train Loss: **0.3399**, Train Acc: 88.81%, Val Loss: **0.3182**, Val Acc: 88.33%, Time: 88 sec

2025-02-19 00:56:27,832 - __main__ - DEBUG - Epoch [4/10]: Train Loss: **0.3113**, Train Acc: 89.90%, Val Loss: **0.2995**, Val Acc: 90.42%, Time: 90 sec

2025-02-19 00:57:54,920 - __main__ - DEBUG - Epoch [5/10]: Train Loss: **0.2878**, Train Acc: 89.61%, Val Loss: **0.2868**, Val Acc: 91.67%, Time: 87 sec

2025-02-19 00:59:22,059 - __main__ - DEBUG - Epoch [6/10]: Train Loss: **0.2714**, Train Acc: 91.72%, Val Loss: **0.2784**, Val Acc: 90.83%, Time: 87 sec

2025-02-19 01:00:49,140 - __main__ - DEBUG - Epoch [7/10]: Train Loss: **0.2653**, Train Acc: 91.21%, Val Loss: **0.2918**, Val Acc: 89.17%, Time: 87 sec

2025-02-19 01:02:18,401 - __main__ - DEBUG - Epoch [8/10]: Train Loss: **0.2744**, Train Acc: 90.64%, Val Loss: **0.2694**, Val Acc: 92.50%, Time: 89 sec

2025-02-19 01:03:45,485 - __main__ - DEBUG - Epoch [9/10]: Train Loss: **0.2412**, Train Acc: 91.89%, Val Loss: **0.2720**, Val Acc: 92.08%, Time: 87 sec

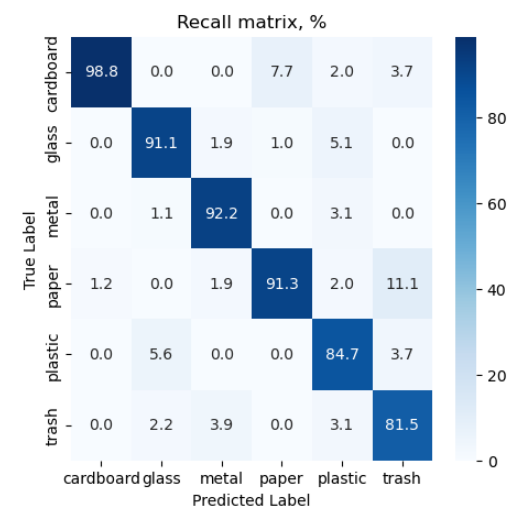
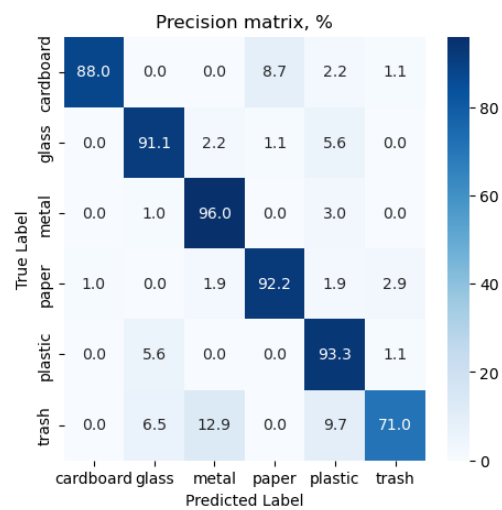
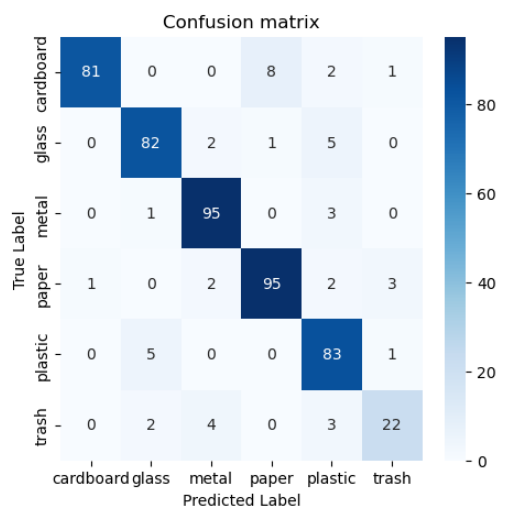
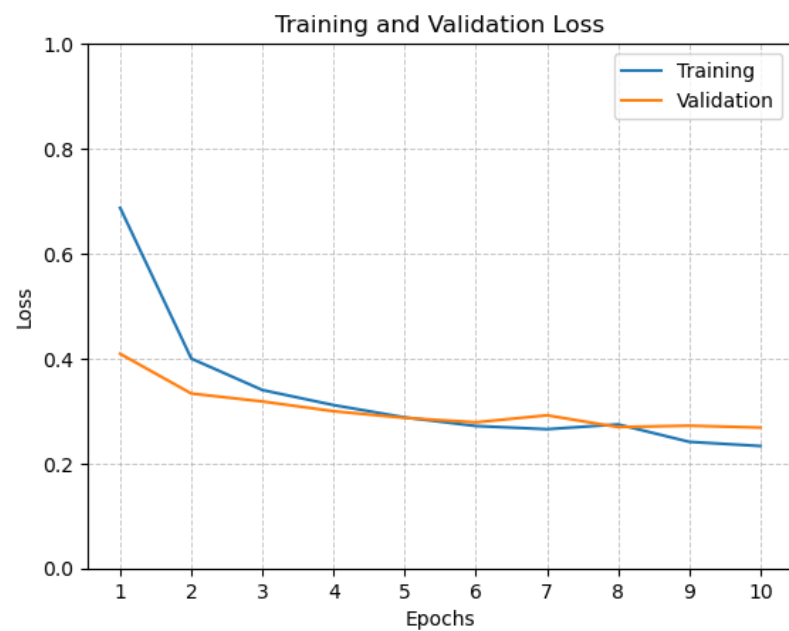
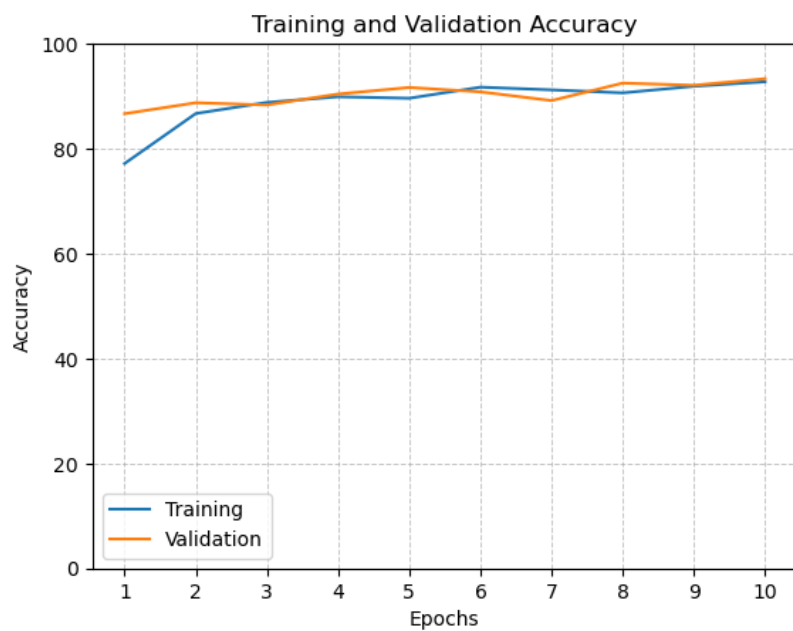
2025-02-19 01:05:11,964 - __main__ - DEBUG - Epoch [10/10]: Train Loss: **0.2332**, Train Acc: 92.75%, Val Loss: **0.2684**, Val Acc: 93.33%, Time: 86 sec

2025-02-19 01:05:38,883 - __main__ - DEBUG - Trial: 1, Test Loss: 0.2586, Test Acc: 90.87%, Avg Time/Image: 0.010 sec

2025-02-19 01:05:38,893 - __main__ - INFO - Final Test: Loss: **0.2586**, Acc: **90.87%**

2025-02-19 01:05:38,901 - __main__ - INFO - Mean processing time per image: 0.010 sec

2025-02-19 01:06:38,952 - __main__ - DEBUG - Total cycle elapsed time: 16 min 12 sec



2025-02-19 01:06:39,954 - __main__ - DEBUG - **Combination 4/21**

2025-02-19 01:06:42,403 - __main__ - DEBUG - train_model() uses mps device

2025-02-19 01:06:42,413 - __main__ - DEBUG - From scratch: **True**

2025-02-19 01:06:42,414 - __main__ - DEBUG - Source folder: **../Data/raw**

2025-02-19 01:06:42,414 - __main__ - DEBUG - New dataset folder: **None**

2025-02-19 01:06:42,414 - __main__ - DEBUG - Total number of elements for training - 1770, validation - 252, testing - 505

2025-02-19 01:06:42,416 - __main__ - DEBUG - Learning Rate: **0.0025**, LR Decoy: **0.85**, Batch size: **24**

2025-02-19 01:08:16,719 - __main__ - DEBUG - Epoch [1/10]: Train Loss: **0.7048**, Train Acc: 77.05%, Val Loss: **0.4187**, Val Acc: 87.08%, Time: 94 sec

2025-02-19 01:09:44,713 - __main__ - DEBUG - Epoch [2/10]: Train Loss: **0.4121**, Train Acc: 86.59%, Val Loss: **0.3500**, Val Acc: 88.75%, Time: 88 sec

2025-02-19 01:11:11,631 - __main__ - DEBUG - Epoch [3/10]: Train Loss: **0.3527**, Train Acc: 88.13%, Val Loss: **0.3327**, Val Acc: 89.17%, Time: 87 sec

2025-02-19 01:12:38,557 - __main__ - DEBUG - Epoch [4/10]: Train Loss: **0.3287**, Train Acc: 89.44%, Val Loss: **0.3073**, Val Acc: 90.42%, Time: 87 sec

2025-02-19 01:14:06,055 - __main__ - DEBUG - Epoch [5/10]: Train Loss: **0.3136**, Train Acc: 89.21%, Val Loss: **0.3019**, Val Acc: 90.83%, Time: 87 sec

2025-02-19 01:15:32,957 - __main__ - DEBUG - Epoch [6/10]: Train Loss: **0.2998**, Train Acc: 90.41%, Val Loss: **0.2954**, Val Acc: 90.42%, Time: 87 sec

2025-02-19 01:17:00,117 - __main__ - DEBUG - Epoch [7/10]: Train Loss: **0.3030**, Train Acc: 90.58%, Val Loss: **0.3102**, Val Acc: 89.58%, Time: 87 sec

2025-02-19 01:18:27,571 - __main__ - DEBUG - Epoch [8/10]: Train Loss: **0.3117**, Train Acc: 90.07%, Val Loss: **0.2902**, Val Acc: 90.83%, Time: 87 sec

2025-02-19 01:19:54,710 - __main__ - DEBUG - Epoch [9/10]: Train Loss: **0.2864**, Train Acc: 90.70%, Val Loss: **0.2965**, Val Acc: 89.58%, Time: 87 sec

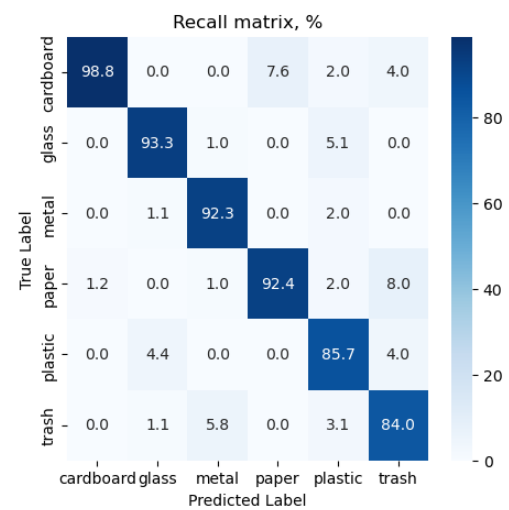
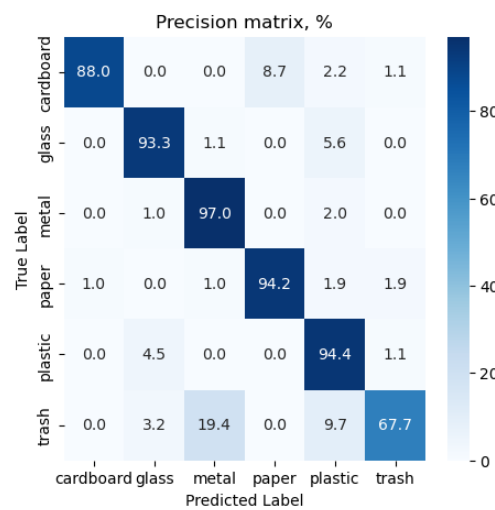
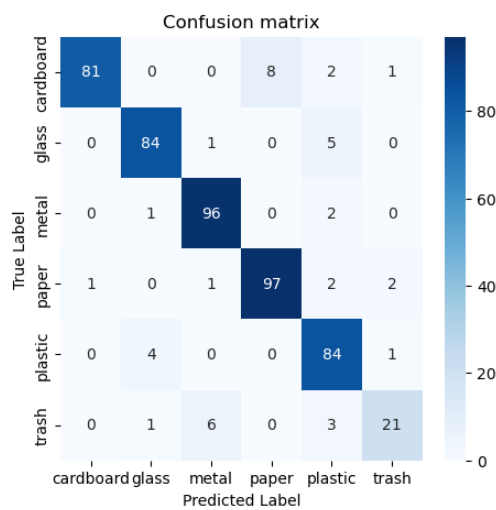
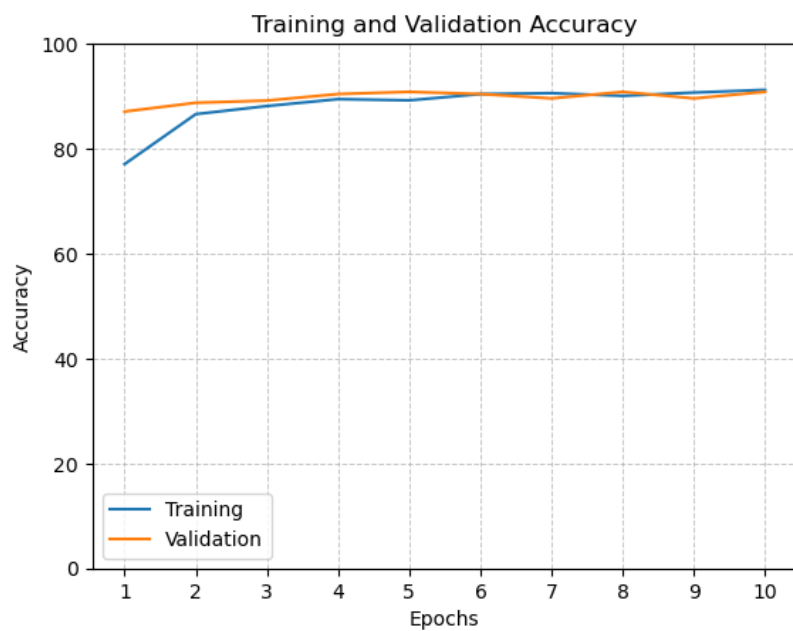
2025-02-19 01:21:22,062 - __main__ - DEBUG - Epoch [10/10]: Train Loss: **0.2833**, Train Acc: 91.21%, Val Loss: **0.2915**, Val Acc: 90.83%, Time: 87 sec

2025-02-19 01:21:49,365 - __main__ - DEBUG - Trial: 1, Test Loss: 0.2887, Test Acc: 91.87%, Avg Time/Image: 0.010 sec

2025-02-19 01:21:49,375 - __main__ - INFO - Final Test: Loss: **0.2887**, Acc: **91.87%**

2025-02-19 01:21:49,383 - __main__ - INFO - Mean processing time per image: 0.010 sec

2025-02-19 01:22:49,430 - __main__ - DEBUG - Total cycle elapsed time: 16 min 9 sec



2025-02-19 01:22:49,983 - __main__ - DEBUG - **Combination 5/21**

2025-02-19 01:22:52,581 - __main__ - DEBUG - train_model() uses mps device

2025-02-19 01:22:52,582 - __main__ - DEBUG - From scratch: **True**

2025-02-19 01:22:52,582 - __main__ - DEBUG - Source folder: **../Data/raw**

2025-02-19 01:22:52,582 - __main__ - DEBUG - New dataset folder: **None**

2025-02-19 01:22:52,582 - __main__ - DEBUG - Total number of elements for training - 1770, validation - 252, testing - 505

2025-02-19 01:22:52,583 - __main__ - DEBUG - Learning Rate: **0.00225**, LR Decoy: **0.85**, Batch size: **24**

2025-02-19 01:24:25,649 - __main__ - DEBUG - Epoch [1/10]: Train Loss: **0.7272**, Train Acc: 76.43%, Val Loss: **0.4212**, Val Acc: 86.25%, Time: 93 sec

2025-02-19 01:25:53,143 - __main__ - DEBUG - Epoch [2/10]: Train Loss: **0.4177**, Train Acc: 86.42%, Val Loss: **0.3336**, Val Acc: 90.00%, Time: 87 sec

2025-02-19 01:27:20,751 - __main__ - DEBUG - Epoch [3/10]: Train Loss: **0.3577**, Train Acc: 88.13%, Val Loss: **0.3126**, Val Acc: 90.83%, Time: 88 sec

2025-02-19 01:28:47,950 - __main__ - DEBUG - Epoch [4/10]: Train Loss: **0.3365**, Train Acc: 88.64%, Val Loss: **0.3273**, Val Acc: 90.00%, Time: 87 sec

2025-02-19 01:30:15,113 - __main__ - DEBUG - Epoch [5/10]: Train Loss: **0.3094**, Train Acc: 89.16%, Val Loss: **0.2870**, Val Acc: 91.67%, Time: 87 sec

2025-02-19 01:31:42,066 - __main__ - DEBUG - Epoch [6/10]: Train Loss: **0.2945**, Train Acc: 90.41%, Val Loss: **0.2737**, Val Acc: 93.33%, Time: 87 sec

2025-02-19 01:33:09,183 - __main__ - DEBUG - Epoch [7/10]: Train Loss: **0.2908**, Train Acc: 89.50%, Val Loss: **0.3294**, Val Acc: 90.42%, Time: 87 sec

2025-02-19 01:34:36,405 - __main__ - DEBUG - Epoch [8/10]: Train Loss: **0.3102**, Train Acc: 89.10%, Val Loss: **0.2977**, Val Acc: 91.67%, Time: 87 sec

2025-02-19 01:36:04,136 - __main__ - DEBUG - Epoch [9/10]: Train Loss: **0.2686**, Train Acc: 90.13%, Val Loss: **0.2980**, Val Acc: 93.33%, Time: 88 sec

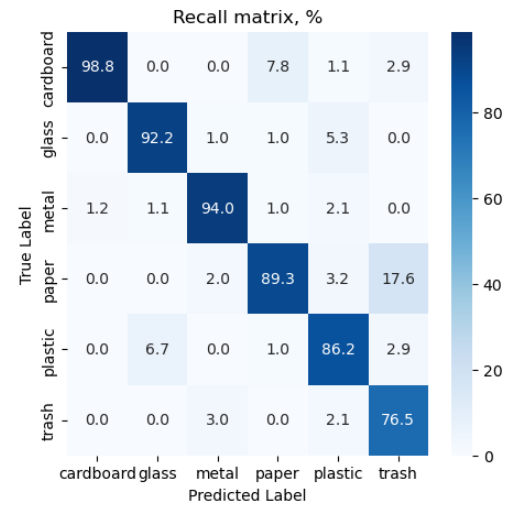
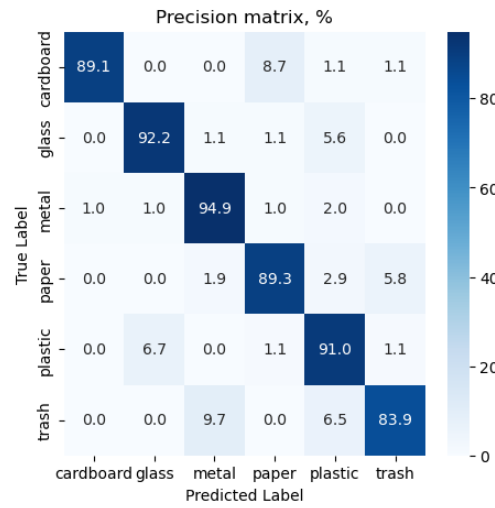
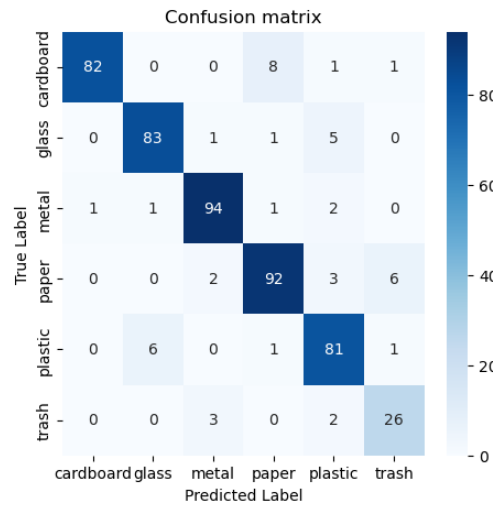
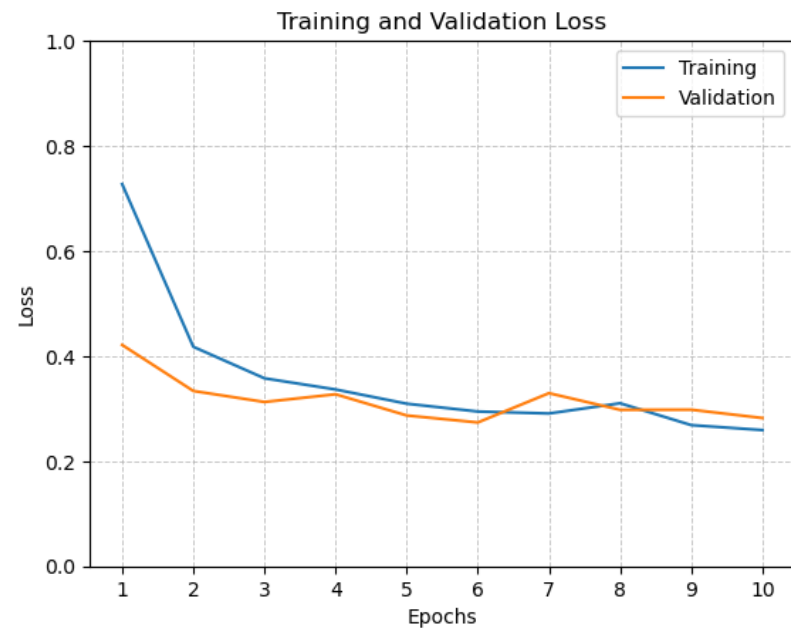
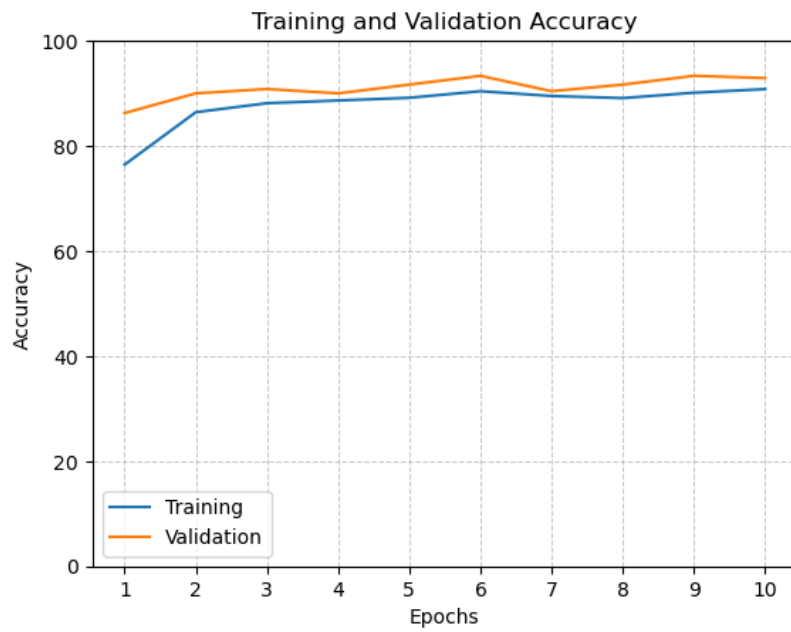
2025-02-19 01:37:31,361 - __main__ - DEBUG - Epoch [10/10]: Train Loss: **0.2592**, Train Acc: 90.81%, Val Loss: **0.2821**, Val Acc: 92.92%, Time: 87 sec

2025-02-19 01:37:59,043 - __main__ - DEBUG - Trial: 1, Test Loss: 0.2740, Test Acc: 90.87%, Avg Time/Image: 0.011 sec

2025-02-19 01:37:59,057 - __main__ - INFO - Final Test: Loss: **0.2740**, Acc: **90.87%**

2025-02-19 01:37:59,064 - __main__ - INFO - Mean processing time per image: 0.011 sec

2025-02-19 01:38:59,112 - __main__ - DEBUG - Total cycle elapsed time: 16 min 9 sec



2025-02-19 01:38:59,710 - __main__ - DEBUG - **Combination 6/21**

2025-02-19 01:39:02,165 - __main__ - DEBUG - train_model() uses mps device

2025-02-19 01:39:02,173 - __main__ - DEBUG - From scratch: **True**

2025-02-19 01:39:02,174 - __main__ - DEBUG - Source folder: **../Data/raw**

2025-02-19 01:39:02,174 - __main__ - DEBUG - New dataset folder: **None**

2025-02-19 01:39:02,174 - __main__ - DEBUG - Total number of elements for training - 1770, validation - 252, testing - 505

2025-02-19 01:39:02,175 - __main__ - DEBUG - Learning Rate: **0.002**, LR Decoy: **0.85**, Batch size: **24**

2025-02-19 01:40:35,565 - __main__ - DEBUG - Epoch [1/10]: Train Loss: **0.7557**, Train Acc: 75.91%, Val Loss: **0.4525**, Val Acc: 86.67%, Time: 93 sec

2025-02-19 01:42:03,351 - __main__ - DEBUG - Epoch [2/10]: Train Loss: **0.4441**, Train Acc: 85.39%, Val Loss: **0.3712**, Val Acc: 87.50%, Time: 88 sec

2025-02-19 01:43:30,798 - __main__ - DEBUG - Epoch [3/10]: Train Loss: **0.3837**, Train Acc: 87.56%, Val Loss: **0.3393**, Val Acc: 88.75%, Time: 87 sec

2025-02-19 01:44:58,965 - __main__ - DEBUG - Epoch [4/10]: Train Loss: **0.3677**, Train Acc: 88.01%, Val Loss: **0.3830**, Val Acc: 86.67%, Time: 88 sec

2025-02-19 01:46:26,746 - __main__ - DEBUG - Epoch [5/10]: Train Loss: **0.3482**, Train Acc: 88.41%, Val Loss: **0.3097**, Val Acc: 89.17%, Time: 88 sec

2025-02-19 01:47:53,888 - __main__ - DEBUG - Epoch [6/10]: Train Loss: **0.3364**, Train Acc: 89.16%, Val Loss: **0.3014**, Val Acc: 91.67%, Time: 87 sec

2025-02-19 01:49:21,305 - __main__ - DEBUG - Epoch [7/10]: Train Loss: **0.3397**, Train Acc: 88.01%, Val Loss: **0.3641**, Val Acc: 86.67%, Time: 87 sec

2025-02-19 01:50:48,965 - __main__ - DEBUG - Epoch [8/10]: Train Loss: **0.3543**, Train Acc: 88.58%, Val Loss: **0.3398**, Val Acc: 88.33%, Time: 88 sec

2025-02-19 01:52:16,880 - __main__ - DEBUG - Epoch [9/10]: Train Loss: **0.3148**, Train Acc: 89.78%, Val Loss: **0.3286**, Val Acc: 90.42%, Time: 88 sec

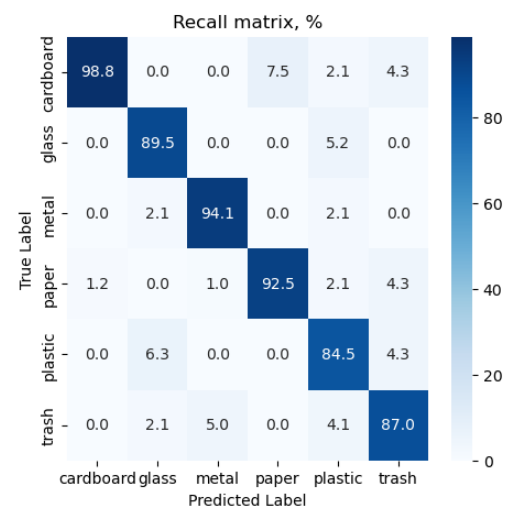
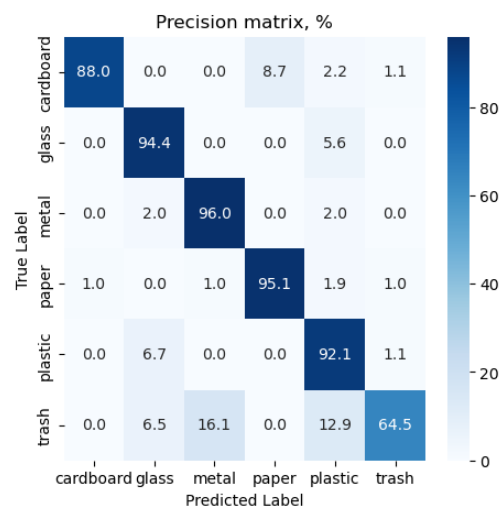
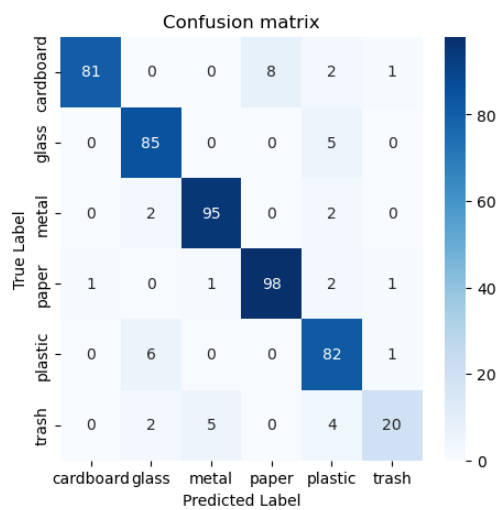
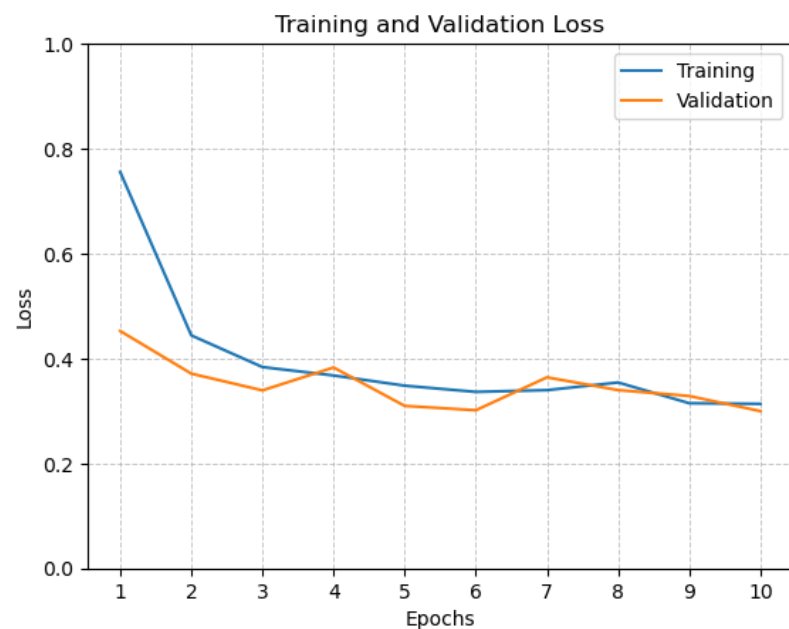
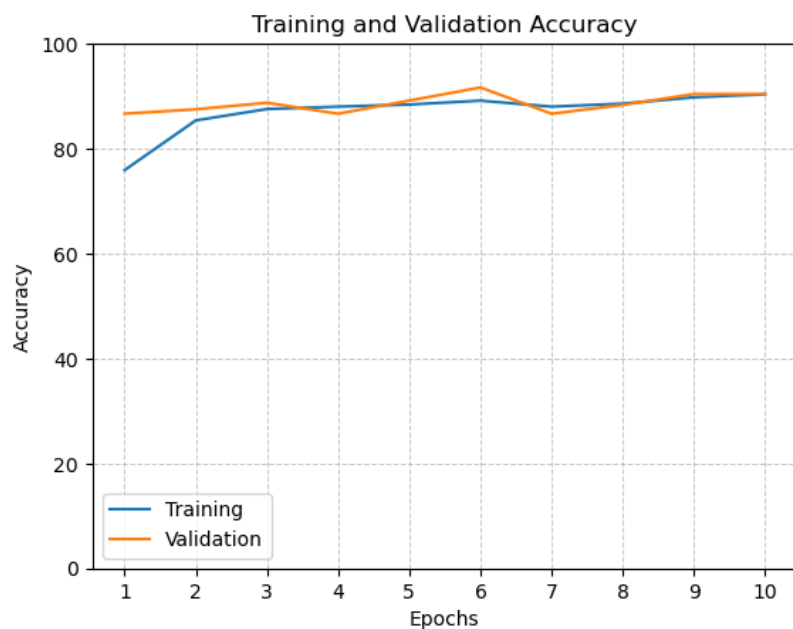
2025-02-19 01:53:44,613 - __main__ - DEBUG - Epoch [10/10]: Train Loss: **0.3136**, Train Acc: 90.35%, Val Loss: **0.2997**, Val Acc: 90.42%, Time: 88 sec

2025-02-19 01:54:12,387 - __main__ - DEBUG - Trial: 1, Test Loss: 0.2978, Test Acc: 91.47%, Avg Time/Image: 0.011 sec

2025-02-19 01:54:12,397 - __main__ - INFO - Final Test: Loss: **0.2978**, Acc: **91.47%**

2025-02-19 01:54:12,406 - __main__ - INFO - Mean processing time per image: 0.011 sec

2025-02-19 01:55:12,451 - __main__ - DEBUG - Total cycle elapsed time: 16 min 13 sec



2025-02-19 01:55:13,378 - __main__ - DEBUG - **Combination 7/21**

2025-02-19 01:55:15,738 - __main__ - DEBUG - train_model() uses mps device

2025-02-19 01:55:15,739 - __main__ - DEBUG - From scratch: **True**

2025-02-19 01:55:15,739 - __main__ - DEBUG - Source folder: **../Data/raw**

2025-02-19 01:55:15,739 - __main__ - DEBUG - New dataset folder: **None**

2025-02-19 01:55:15,740 - __main__ - DEBUG - Total number of elements for training - 1770, validation - 252, testing - 505

2025-02-19 01:55:15,741 - __main__ - DEBUG - Learning Rate: **0.001**, LR Decoy: **0.85**, Batch size: **24**

2025-02-19 01:56:48,900 - __main__ - DEBUG - Epoch [1/10]: Train Loss: **0.9504**, Train Acc: 70.55%, Val Loss: **0.5484**, Val Acc: 85.42%, Time: 93 sec

2025-02-19 01:58:19,305 - __main__ - DEBUG - Epoch [2/10]: Train Loss: **0.5366**, Train Acc: 83.73%, Val Loss: **0.4327**, Val Acc: 85.83%, Time: 90 sec

2025-02-19 01:59:48,485 - __main__ - DEBUG - Epoch [3/10]: Train Loss: **0.4491**, Train Acc: 86.87%, Val Loss: **0.3937**, Val Acc: 86.67%, Time: 89 sec

2025-02-19 02:01:16,879 - __main__ - DEBUG - Epoch [4/10]: Train Loss: **0.4119**, Train Acc: 86.53%, Val Loss: **0.3552**, Val Acc: 88.33%, Time: 88 sec

2025-02-19 02:02:44,661 - __main__ - DEBUG - Epoch [5/10]: Train Loss: **0.3812**, Train Acc: 87.61%, Val Loss: **0.3400**, Val Acc: 89.58%, Time: 88 sec

2025-02-19 02:04:12,461 - __main__ - DEBUG - Epoch [6/10]: Train Loss: **0.3587**, Train Acc: 89.16%, Val Loss: **0.3283**, Val Acc: 90.00%, Time: 88 sec

2025-02-19 02:05:39,630 - __main__ - DEBUG - Epoch [7/10]: Train Loss: **0.3549**, Train Acc: 89.67%, Val Loss: **0.3267**, Val Acc: 89.58%, Time: 87 sec

2025-02-19 02:07:07,081 - __main__ - DEBUG - Epoch [8/10]: Train Loss: **0.3559**, Train Acc: 88.58%, Val Loss: **0.3131**, Val Acc: 90.42%, Time: 87 sec

2025-02-19 02:08:34,733 - __main__ - DEBUG - Epoch [9/10]: Train Loss: **0.3268**, Train Acc: 89.27%, Val Loss: **0.3125**, Val Acc: 90.83%, Time: 88 sec

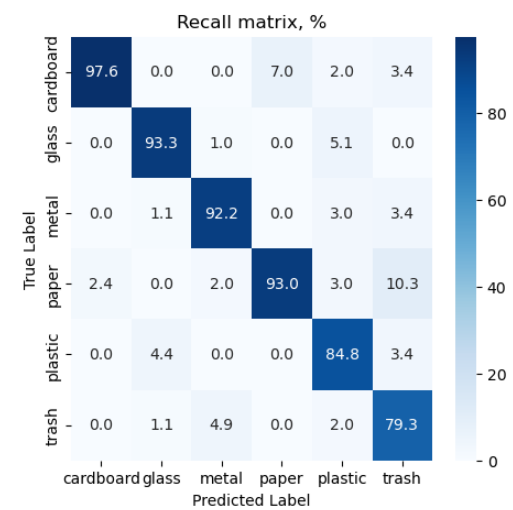
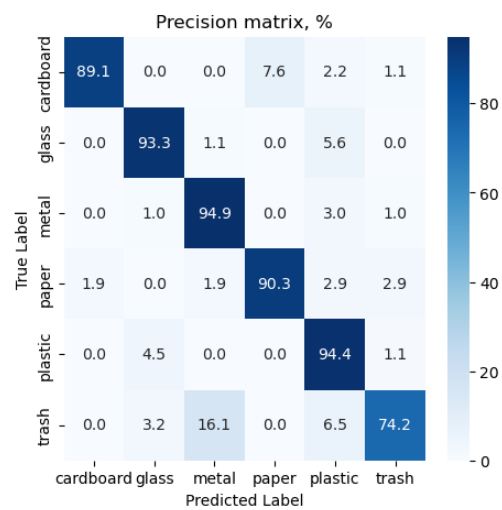
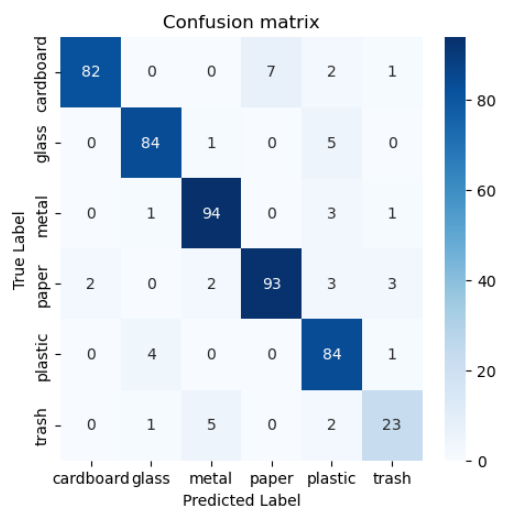
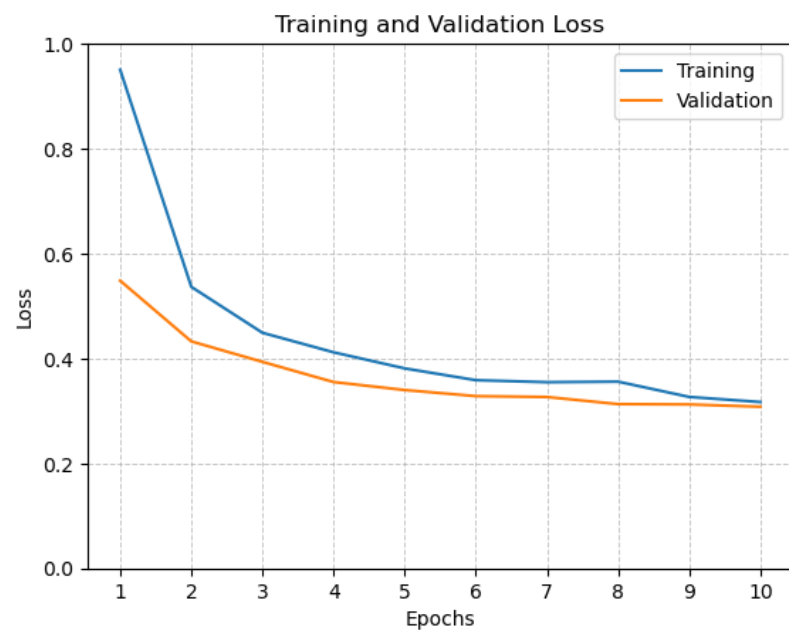
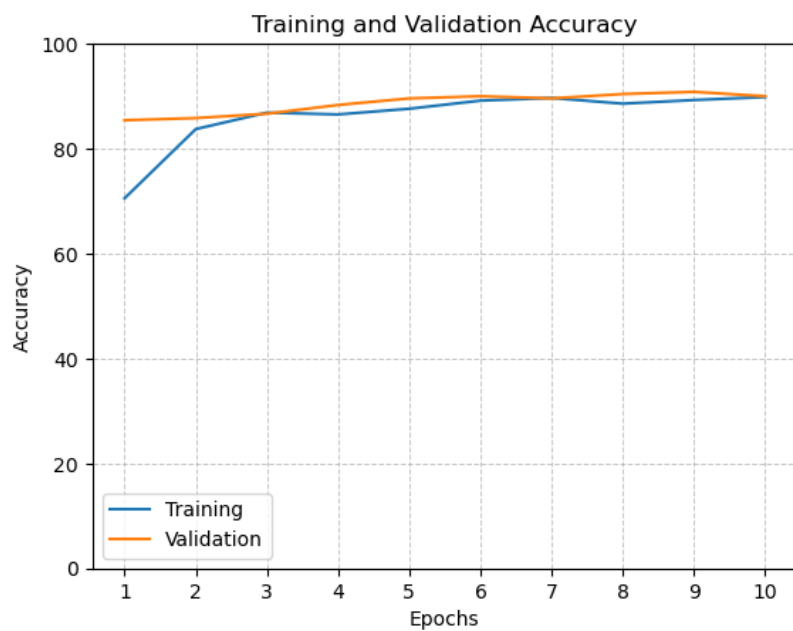
2025-02-19 02:10:02,412 - __main__ - DEBUG - Epoch [10/10]: Train Loss: **0.3171**, Train Acc: 89.84%, Val Loss: **0.3081**, Val Acc: 90.00%, Time: 88 sec

2025-02-19 02:10:30,553 - __main__ - DEBUG - Trial: 1, Test Loss: 0.2977, Test Acc: 91.27%, Avg Time/Image: 0.011 sec

2025-02-19 02:10:30,564 - __main__ - INFO - Final Test: Loss: **0.2977**, Acc: **91.27%**

2025-02-19 02:10:30,573 - __main__ - INFO - Mean processing time per image: 0.011 sec

2025-02-19 02:11:30,625 - __main__ - DEBUG - Total cycle elapsed time: 16 min 17 sec



2025-02-19 02:11:31,196 - __main__ - DEBUG - **Combination 8/21**

2025-02-19 02:11:33,663 - __main__ - DEBUG - train_model() uses mps device

2025-02-19 02:11:33,671 - __main__ - DEBUG - From scratch: **True**

2025-02-19 02:11:33,672 - __main__ - DEBUG - Source folder: **../Data/raw**

2025-02-19 02:11:33,672 - __main__ - DEBUG - New dataset folder: **None**

2025-02-19 02:11:33,672 - __main__ - DEBUG - Total number of elements for training - 1770, validation - 252, testing - 505

2025-02-19 02:11:33,674 - __main__ - DEBUG - Learning Rate: **0.004**, LR Decoy: **0.8**, Batch size: **24**

2025-02-19 02:13:06,693 - __main__ - DEBUG - Epoch [1/10]: Train Loss: **0.6289**, Train Acc: 78.77%, Val Loss: **0.3574**, Val Acc: 86.67%, Time: 93 sec

2025-02-19 02:14:34,699 - __main__ - DEBUG - Epoch [2/10]: Train Loss: **0.3832**, Train Acc: 86.07%, Val Loss: **0.3074**, Val Acc: 90.42%, Time: 88 sec

2025-02-19 02:16:02,281 - __main__ - DEBUG - Epoch [3/10]: Train Loss: **0.3404**, Train Acc: 88.53%, Val Loss: **0.3029**, Val Acc: 92.50%, Time: 88 sec

2025-02-19 02:17:29,655 - __main__ - DEBUG - Epoch [4/10]: Train Loss: **0.3320**, Train Acc: 88.18%, Val Loss: **0.3783**, Val Acc: 89.17%, Time: 87 sec

2025-02-19 02:18:57,124 - __main__ - DEBUG - Epoch [5/10]: Train Loss: **0.2966**, Train Acc: 89.21%, Val Loss: **0.2802**, Val Acc: 94.58%, Time: 87 sec

2025-02-19 02:20:25,239 - __main__ - DEBUG - Epoch [6/10]: Train Loss: **0.2761**, Train Acc: 90.35%, Val Loss: **0.2754**, Val Acc: 93.33%, Time: 88 sec

2025-02-19 02:21:52,744 - __main__ - DEBUG - Epoch [7/10]: Train Loss: **0.2759**, Train Acc: 90.13%, Val Loss: **0.3463**, Val Acc: 90.83%, Time: 87 sec

2025-02-19 02:23:20,556 - __main__ - DEBUG - Epoch [8/10]: Train Loss: **0.3006**, Train Acc: 90.24%, Val Loss: **0.3196**, Val Acc: 92.50%, Time: 88 sec

2025-02-19 02:24:47,635 - __main__ - DEBUG - Epoch [9/10]: Train Loss: **0.2477**, Train Acc: 90.81%, Val Loss: **0.3133**, Val Acc: 92.50%, Time: 87 sec

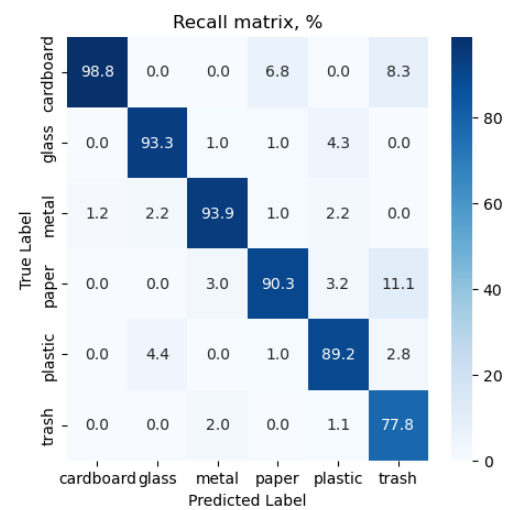
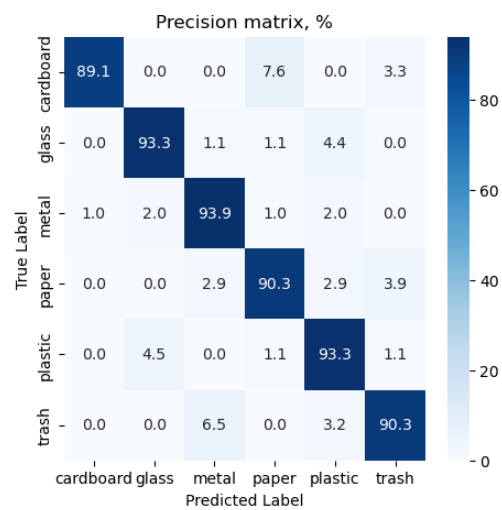
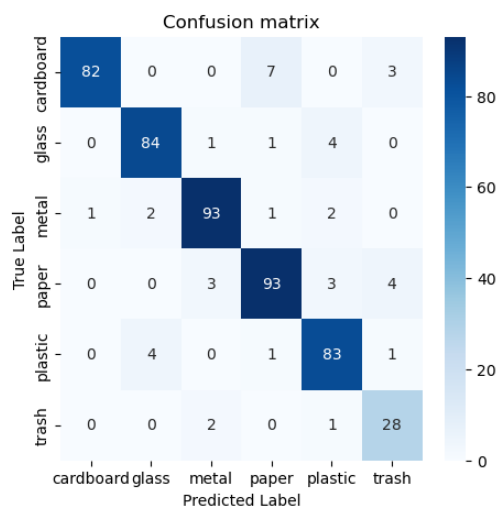
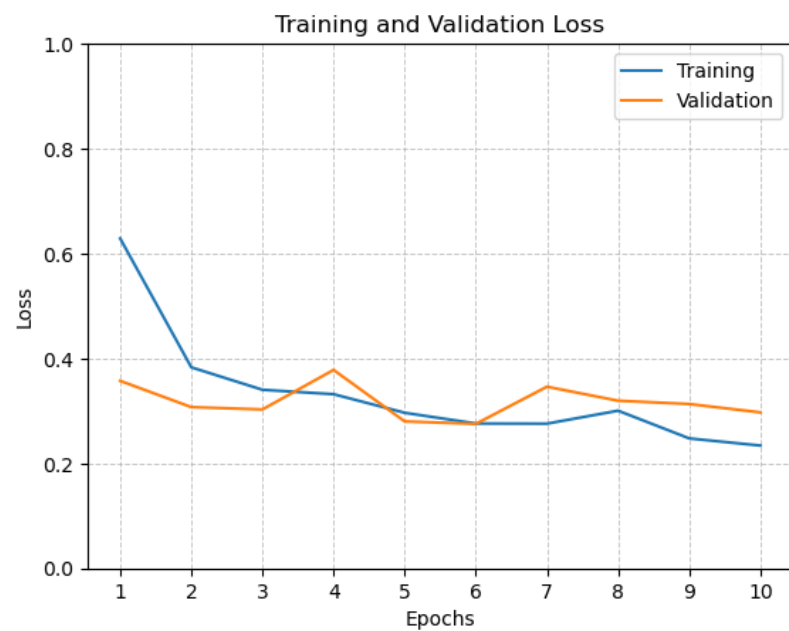
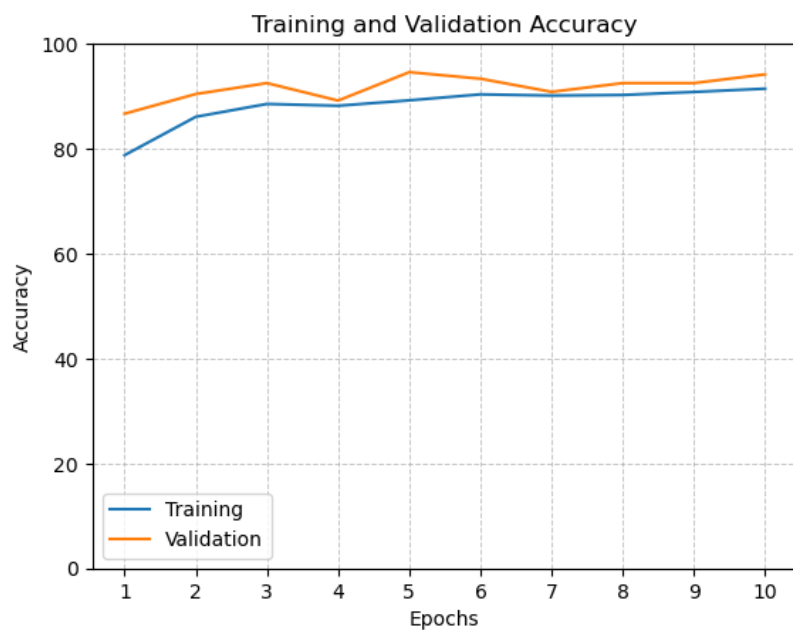
2025-02-19 02:26:15,482 - __main__ - DEBUG - Epoch [10/10]: Train Loss: **0.2341**, Train Acc: 91.44%, Val Loss: **0.2973**, Val Acc: 94.17%, Time: 88 sec

2025-02-19 02:26:42,425 - __main__ - DEBUG - Trial: 1, Test Loss: 0.2882, Test Acc: 91.87%, Avg Time/Image: 0.010 sec

2025-02-19 02:26:42,435 - __main__ - INFO - Final Test: Loss: **0.2882**, Acc: **91.87%**

2025-02-19 02:26:42,444 - __main__ - INFO - Mean processing time per image: 0.010 sec

2025-02-19 02:27:42,491 - __main__ - DEBUG - Total cycle elapsed time: 16 min 11 sec



2025-02-19 02:27:43,058 - __main__ - DEBUG - **Combination 9/21**

2025-02-19 02:27:45,639 - __main__ - DEBUG - train_model() uses mps device

2025-02-19 02:27:45,647 - __main__ - DEBUG - From scratch: **True**

2025-02-19 02:27:45,648 - __main__ - DEBUG - Source folder: **../Data/raw**

2025-02-19 02:27:45,648 - __main__ - DEBUG - New dataset folder: **None**

2025-02-19 02:27:45,648 - __main__ - DEBUG - Total number of elements for training - 1770, validation - 252, testing - 505

2025-02-19 02:27:45,649 - __main__ - DEBUG - Learning Rate: **0.003**, LR Decoy: **0.8**, Batch size: **24**

2025-02-19 02:29:17,926 - __main__ - DEBUG - Epoch [1/10]: Train Loss: **0.6734**, Train Acc: 77.63%, Val Loss: **0.3880**, Val Acc: 87.08%, Time: 92 sec

2025-02-19 02:30:45,971 - __main__ - DEBUG - Epoch [2/10]: Train Loss: **0.4105**, Train Acc: 85.33%, Val Loss: **0.3021**, Val Acc: 90.00%, Time: 88 sec

2025-02-19 02:32:13,716 - __main__ - DEBUG - Epoch [3/10]: Train Loss: **0.3607**, Train Acc: 87.16%, Val Loss: **0.3359**, Val Acc: 88.75%, Time: 88 sec

2025-02-19 02:33:41,748 - __main__ - DEBUG - Epoch [4/10]: Train Loss: **0.3680**, Train Acc: 86.99%, Val Loss: **0.3846**, Val Acc: 88.75%, Time: 88 sec

2025-02-19 02:35:08,499 - __main__ - DEBUG - Epoch [5/10]: Train Loss: **0.3166**, Train Acc: 88.30%, Val Loss: **0.2809**, Val Acc: 92.50%, Time: 87 sec

2025-02-19 02:36:35,567 - __main__ - DEBUG - Epoch [6/10]: Train Loss: **0.2989**, Train Acc: 89.73%, Val Loss: **0.2862**, Val Acc: 92.50%, Time: 87 sec

2025-02-19 02:38:02,856 - __main__ - DEBUG - Epoch [7/10]: Train Loss: **0.3012**, Train Acc: 89.10%, Val Loss: **0.3638**, Val Acc: 88.33%, Time: 87 sec

2025-02-19 02:39:29,715 - __main__ - DEBUG - Epoch [8/10]: Train Loss: **0.3256**, Train Acc: 88.76%, Val Loss: **0.3429**, Val Acc: 90.42%, Time: 87 sec

2025-02-19 02:40:57,562 - __main__ - DEBUG - Epoch [9/10]: Train Loss: **0.2783**, Train Acc: 89.78%, Val Loss: **0.3120**, Val Acc: 92.50%, Time: 88 sec

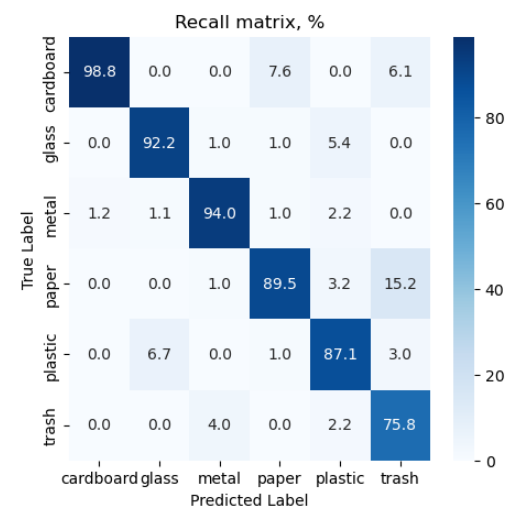
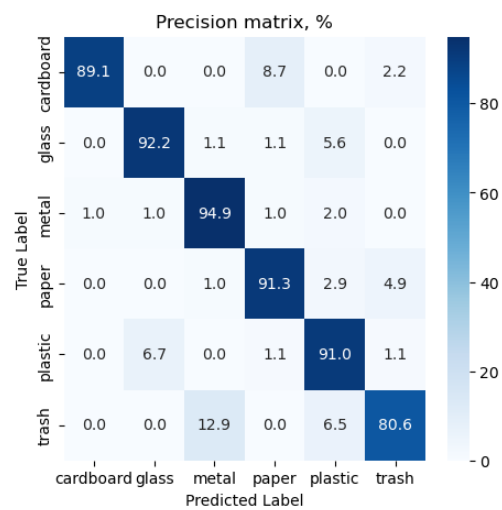
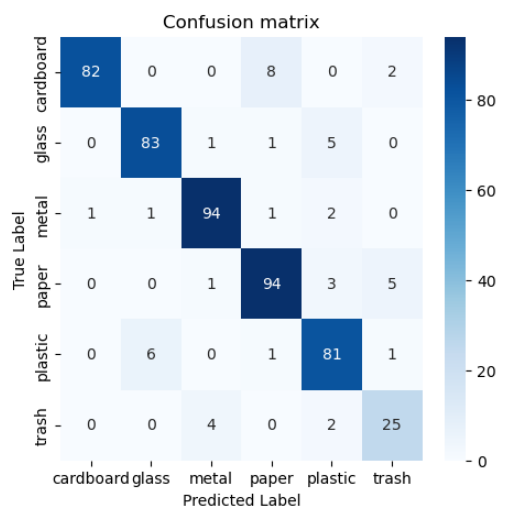
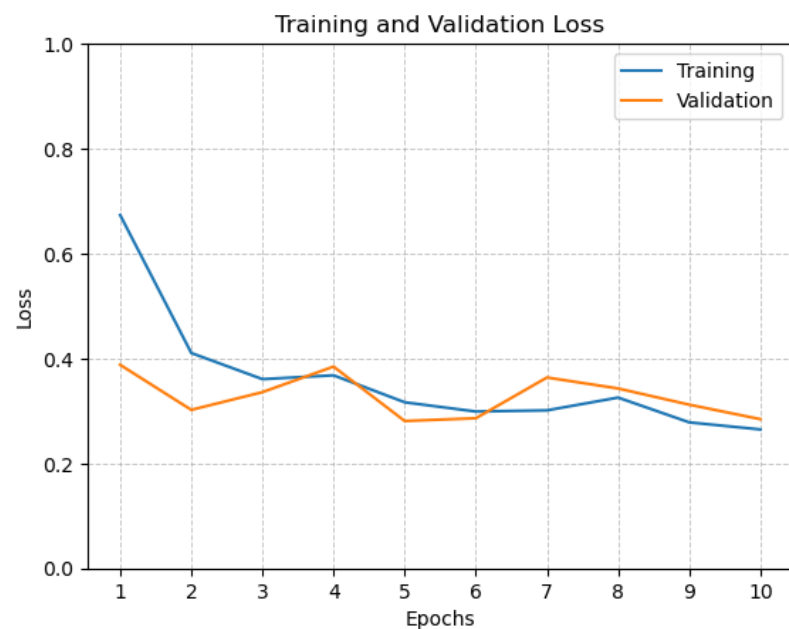
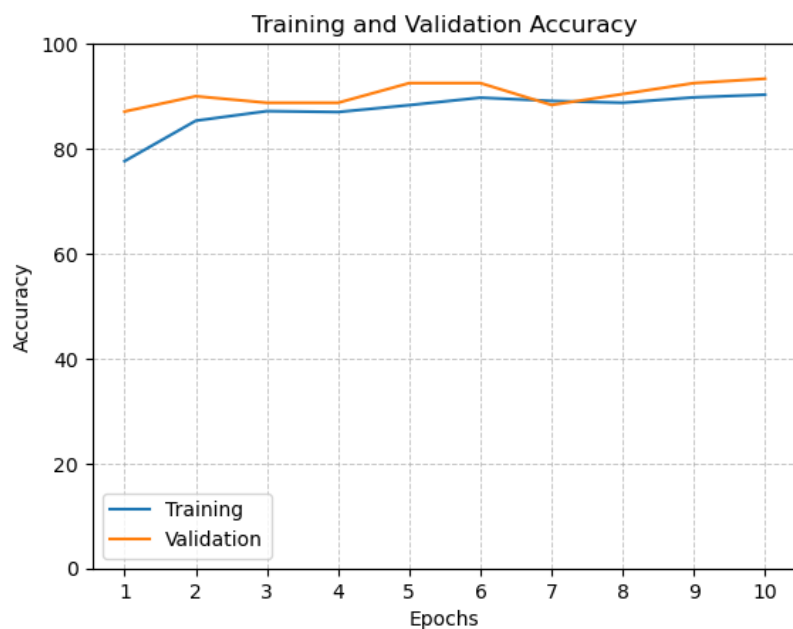
2025-02-19 02:42:25,079 - __main__ - DEBUG - Epoch [10/10]: Train Loss: **0.2648**, Train Acc: 90.30%, Val Loss: **0.2844**, Val Acc: 93.33%, Time: 88 sec

2025-02-19 02:42:52,207 - __main__ - DEBUG - Trial: 1, Test Loss: 0.2838, Test Acc: 91.07%, Avg Time/Image: 0.010 sec

2025-02-19 02:42:52,218 - __main__ - INFO - Final Test: Loss: **0.2838**, Acc: **91.07%**

2025-02-19 02:42:52,224 - __main__ - INFO - Mean processing time per image: 0.010 sec

2025-02-19 02:43:52,279 - __main__ - DEBUG - Total cycle elapsed time: 16 min 9 sec



2025-02-19 02:43:52,854 - __main__ - DEBUG - **Combination 10/21**

2025-02-19 02:43:55,672 - __main__ - DEBUG - train_model() uses mps device

2025-02-19 02:43:55,677 - __main__ - DEBUG - From scratch: **True**

2025-02-19 02:43:55,677 - __main__ - DEBUG - Source folder: **../Data/raw**

2025-02-19 02:43:55,678 - __main__ - DEBUG - New dataset folder: **None**

2025-02-19 02:43:55,678 - __main__ - DEBUG - Total number of elements for training - 1770, validation - 252, testing - 505

2025-02-19 02:43:55,680 - __main__ - DEBUG - Learning Rate: **0.00275**, LR Decoy: **0.8**, Batch size: **24**

2025-02-19 02:45:29,746 - __main__ - DEBUG - Epoch [1/10]: Train Loss: **0.6871**, Train Acc: 77.28%, Val Loss: **0.4026**, Val Acc: 86.67%, Time: 94 sec

2025-02-19 02:46:57,623 - __main__ - DEBUG - Epoch [2/10]: Train Loss: **0.4012**, Train Acc: 86.47%, Val Loss: **0.3241**, Val Acc: 89.17%, Time: 88 sec

2025-02-19 02:48:24,789 - __main__ - DEBUG - Epoch [3/10]: Train Loss: **0.3452**, Train Acc: 88.24%, Val Loss: **0.3005**, Val Acc: 91.25%, Time: 87 sec

2025-02-19 02:49:52,131 - __main__ - DEBUG - Epoch [4/10]: Train Loss: **0.3295**, Train Acc: 88.64%, Val Loss: **0.3360**, Val Acc: 90.00%, Time: 87 sec

2025-02-19 02:51:19,459 - __main__ - DEBUG - Epoch [5/10]: Train Loss: **0.3015**, Train Acc: 89.44%, Val Loss: **0.2846**, Val Acc: 92.50%, Time: 87 sec

2025-02-19 02:52:47,823 - __main__ - DEBUG - Epoch [6/10]: Train Loss: **0.2853**, Train Acc: 90.58%, Val Loss: **0.2735**, Val Acc: 92.92%, Time: 88 sec

2025-02-19 02:54:15,097 - __main__ - DEBUG - Epoch [7/10]: Train Loss: **0.2824**, Train Acc: 89.78%, Val Loss: **0.3197**, Val Acc: 90.83%, Time: 87 sec

2025-02-19 02:55:42,083 - __main__ - DEBUG - Epoch [8/10]: Train Loss: **0.3000**, Train Acc: 90.01%, Val Loss: **0.2868**, Val Acc: 92.50%, Time: 87 sec

2025-02-19 02:57:09,640 - __main__ - DEBUG - Epoch [9/10]: Train Loss: **0.2616**, Train Acc: 90.47%, Val Loss: **0.2913**, Val Acc: 92.50%, Time: 88 sec

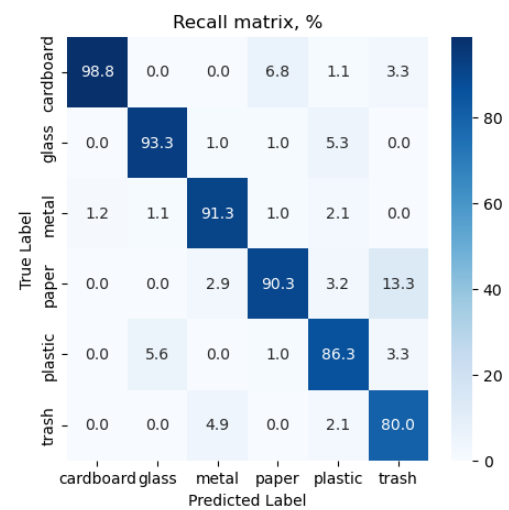
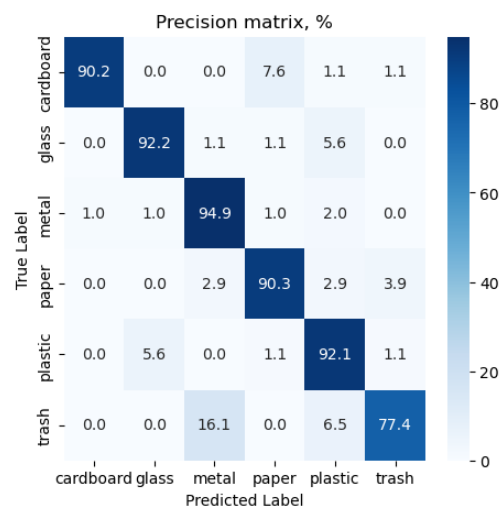
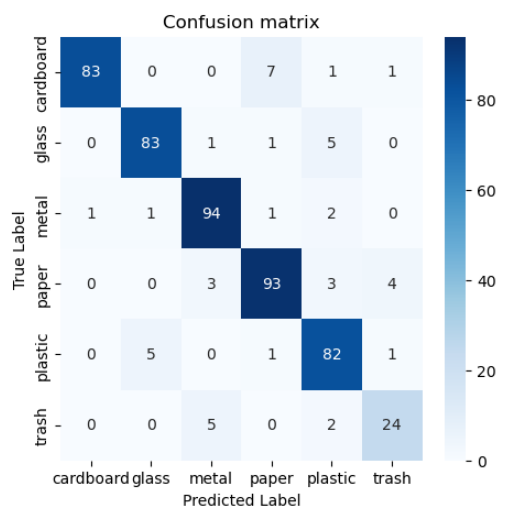
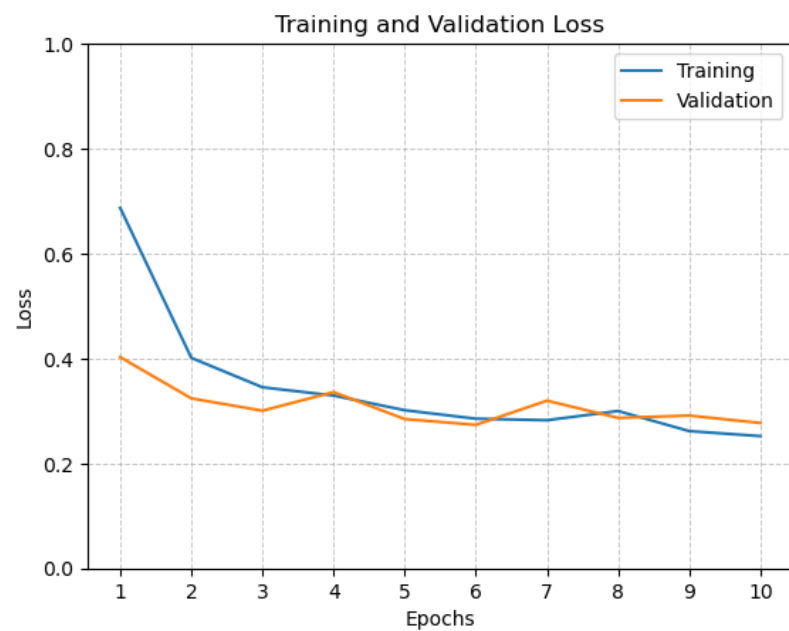
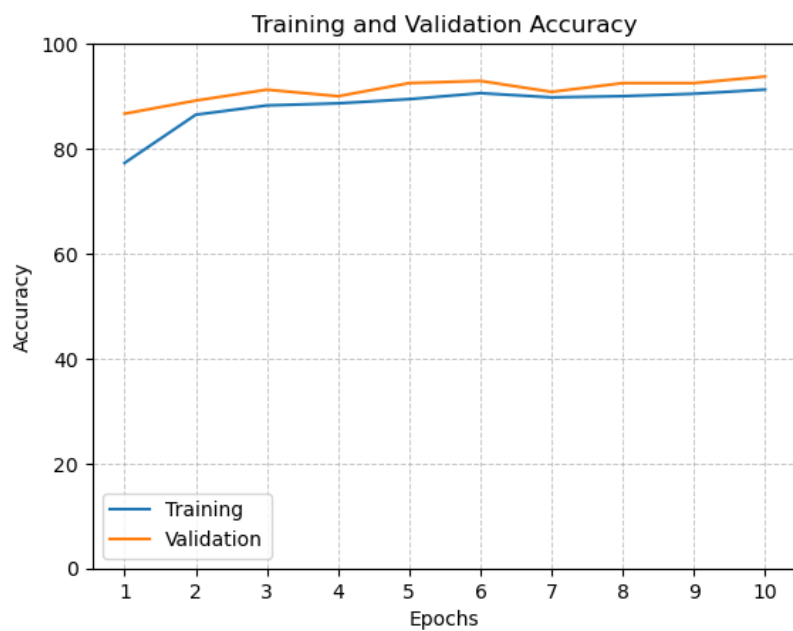
2025-02-19 02:58:37,234 - __main__ - DEBUG - Epoch [10/10]: Train Loss: **0.2521**, Train Acc: 91.27%, Val Loss: **0.2771**, Val Acc: 93.75%, Time: 88 sec

2025-02-19 02:59:04,379 - __main__ - DEBUG - Trial: 1, Test Loss: 0.2730, Test Acc: 91.07%, Avg Time/Image: 0.010 sec

2025-02-19 02:59:04,389 - __main__ - INFO - Final Test: Loss: **0.2730**, Acc: **91.07%**

2025-02-19 02:59:04,401 - __main__ - INFO - Mean processing time per image: 0.010 sec

2025-02-19 03:00:04,447 - __main__ - DEBUG - Total cycle elapsed time: 16 min 12 sec



2025-02-19 03:00:05,009 - __main__ - DEBUG - **Combination 11/21**

2025-02-19 03:00:07,409 - __main__ - DEBUG - train_model() uses mps device

2025-02-19 03:00:07,409 - __main__ - DEBUG - From scratch: **True**

2025-02-19 03:00:07,410 - __main__ - DEBUG - Source folder: **../Data/raw**

2025-02-19 03:00:07,410 - __main__ - DEBUG - New dataset folder: **None**

2025-02-19 03:00:07,410 - __main__ - DEBUG - Total number of elements for training - 1770, validation - 252, testing - 505

2025-02-19 03:00:07,412 - __main__ - DEBUG - Learning Rate: **0.0025**, LR Decoy: **0.8**, Batch size: **24**

2025-02-19 03:01:41,588 - __main__ - DEBUG - Epoch [1/10]: Train Loss: **0.7073**, Train Acc: 76.83%, Val Loss: **0.4143**, Val Acc: 86.25%, Time: 94 sec

2025-02-19 03:03:08,862 - __main__ - DEBUG - Epoch [2/10]: Train Loss: **0.4169**, Train Acc: 85.67%, Val Loss: **0.3347**, Val Acc: 88.33%, Time: 87 sec

2025-02-19 03:04:35,522 - __main__ - DEBUG - Epoch [3/10]: Train Loss: **0.3588**, Train Acc: 87.67%, Val Loss: **0.3048**, Val Acc: 92.08%, Time: 87 sec

2025-02-19 03:06:02,243 - __main__ - DEBUG - Epoch [4/10]: Train Loss: **0.3492**, Train Acc: 88.07%, Val Loss: **0.3808**, Val Acc: 88.33%, Time: 87 sec

2025-02-19 03:07:29,255 - __main__ - DEBUG - Epoch [5/10]: Train Loss: **0.3198**, Train Acc: 88.53%, Val Loss: **0.2839**, Val Acc: 94.17%, Time: 87 sec

2025-02-19 03:08:56,090 - __main__ - DEBUG - Epoch [6/10]: Train Loss: **0.2993**, Train Acc: 89.95%, Val Loss: **0.2701**, Val Acc: 93.75%, Time: 87 sec

2025-02-19 03:10:22,887 - __main__ - DEBUG - Epoch [7/10]: Train Loss: **0.2971**, Train Acc: 89.38%, Val Loss: **0.3394**, Val Acc: 90.00%, Time: 87 sec

2025-02-19 03:11:49,869 - __main__ - DEBUG - Epoch [8/10]: Train Loss: **0.3179**, Train Acc: 88.98%, Val Loss: **0.3029**, Val Acc: 92.08%, Time: 87 sec

2025-02-19 03:13:17,664 - __main__ - DEBUG - Epoch [9/10]: Train Loss: **0.2807**, Train Acc: 89.38%, Val Loss: **0.3029**, Val Acc: 92.08%, Time: 88 sec

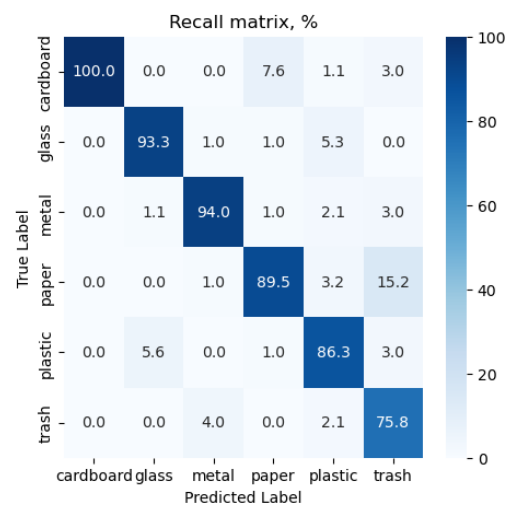
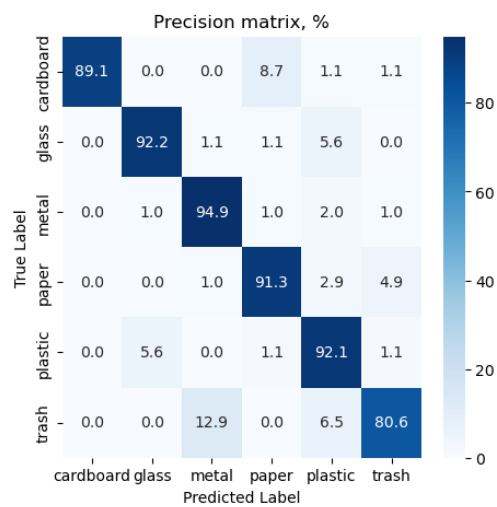
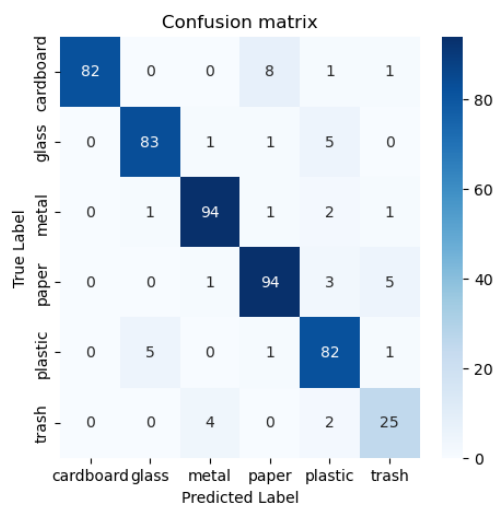
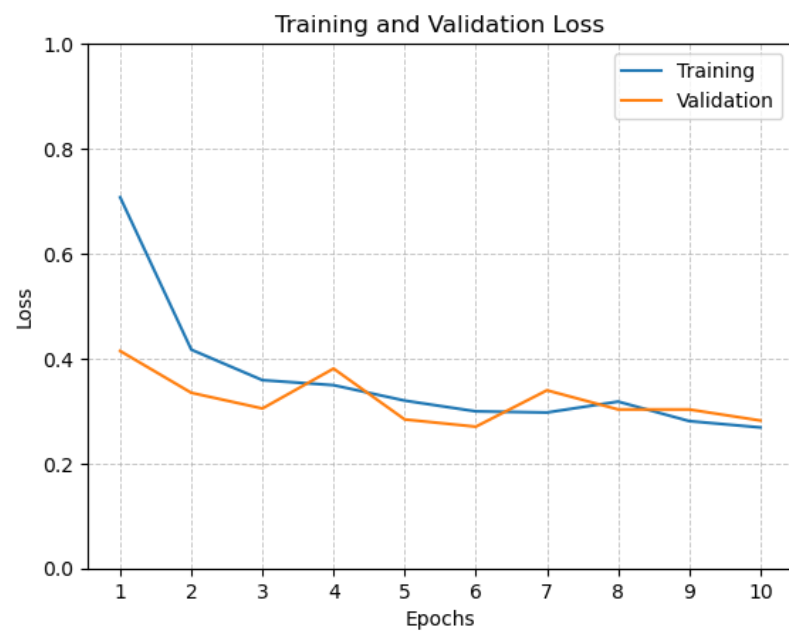
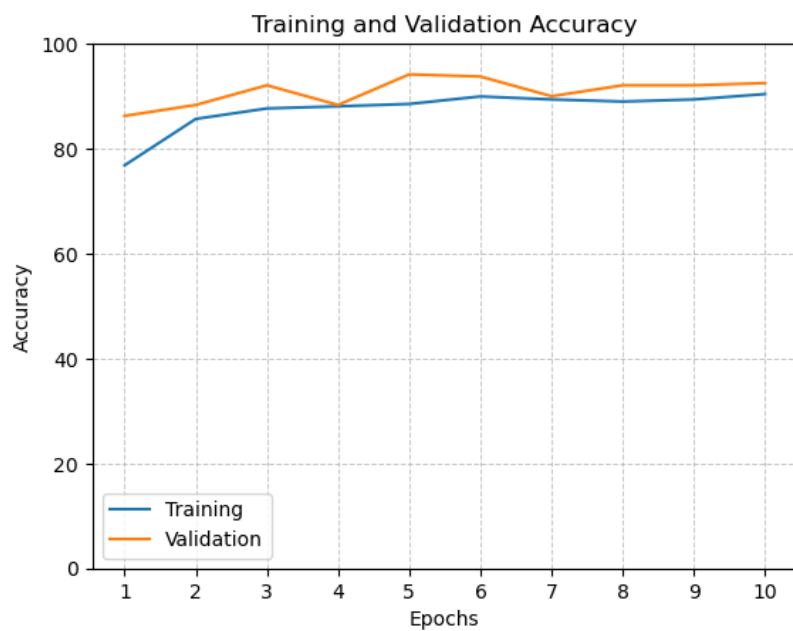
2025-02-19 03:14:47,953 - __main__ - DEBUG - Epoch [10/10]: Train Loss: **0.2686**, Train Acc: 90.41%, Val Loss: **0.2818**, Val Acc: 92.50%, Time: 90 sec

2025-02-19 03:15:15,448 - __main__ - DEBUG - Trial: 1, Test Loss: 0.2782, Test Acc: 91.27%, Avg Time/Image: 0.011 sec

2025-02-19 03:15:15,459 - __main__ - INFO - Final Test: Loss: **0.2782**, Acc: **91.27%**

2025-02-19 03:15:15,463 - __main__ - INFO - Mean processing time per image: 0.011 sec

2025-02-19 03:16:15,509 - __main__ - DEBUG - Total cycle elapsed time: 16 min 10 sec



2025-02-19 03:16:16,066 - __main__ - DEBUG - **Combination 12/21**

2025-02-19 03:16:18,411 - __main__ - DEBUG - train_model() uses mps device

2025-02-19 03:16:18,416 - __main__ - DEBUG - From scratch: **True**

2025-02-19 03:16:18,416 - __main__ - DEBUG - Source folder: **../Data/raw**

2025-02-19 03:16:18,416 - __main__ - DEBUG - New dataset folder: **None**

2025-02-19 03:16:18,417 - __main__ - DEBUG - Total number of elements for training - 1770, validation - 252, testing - 505

2025-02-19 03:16:18,418 - __main__ - DEBUG - Learning Rate: **0.00225**, LR Decoy: **0.8**, Batch size: **24**

2025-02-19 03:17:51,821 - __main__ - DEBUG - Epoch [1/10]: Train Loss: **0.7286**, Train Acc: 76.31%, Val Loss: **0.4277**, Val Acc: 86.25%, Time: 93 sec

2025-02-19 03:19:20,015 - __main__ - DEBUG - Epoch [2/10]: Train Loss: **0.4245**, Train Acc: 85.45%, Val Loss: **0.3467**, Val Acc: 88.33%, Time: 88 sec

2025-02-19 03:20:47,210 - __main__ - DEBUG - Epoch [3/10]: Train Loss: **0.3634**, Train Acc: 87.90%, Val Loss: **0.3100**, Val Acc: 91.25%, Time: 87 sec

2025-02-19 03:22:14,805 - __main__ - DEBUG - Epoch [4/10]: Train Loss: **0.3493**, Train Acc: 88.30%, Val Loss: **0.3603**, Val Acc: 88.75%, Time: 88 sec

2025-02-19 03:23:42,996 - __main__ - DEBUG - Epoch [5/10]: Train Loss: **0.3215**, Train Acc: 88.64%, Val Loss: **0.2924**, Val Acc: 92.50%, Time: 88 sec

2025-02-19 03:25:10,265 - __main__ - DEBUG - Epoch [6/10]: Train Loss: **0.3046**, Train Acc: 90.18%, Val Loss: **0.2764**, Val Acc: 92.50%, Time: 87 sec

2025-02-19 03:26:37,638 - __main__ - DEBUG - Epoch [7/10]: Train Loss: **0.3002**, Train Acc: 89.27%, Val Loss: **0.3311**, Val Acc: 89.58%, Time: 87 sec

2025-02-19 03:28:05,011 - __main__ - DEBUG - Epoch [8/10]: Train Loss: **0.3178**, Train Acc: 89.38%, Val Loss: **0.2926**, Val Acc: 92.08%, Time: 87 sec

2025-02-19 03:29:32,108 - __main__ - DEBUG - Epoch [9/10]: Train Loss: **0.2836**, Train Acc: 89.55%, Val Loss: **0.2972**, Val Acc: 91.67%, Time: 87 sec

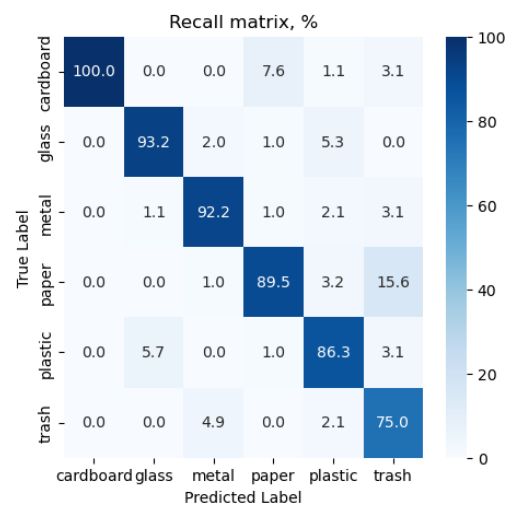
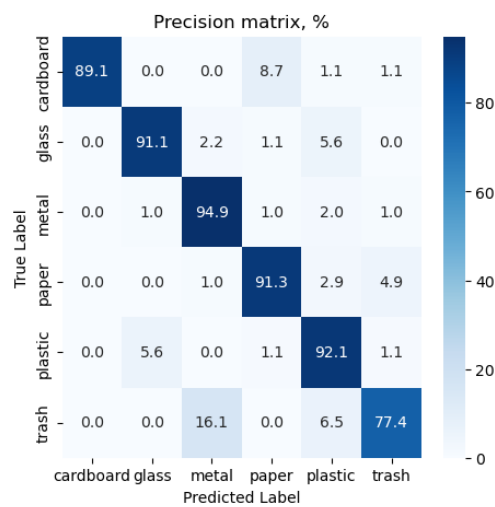
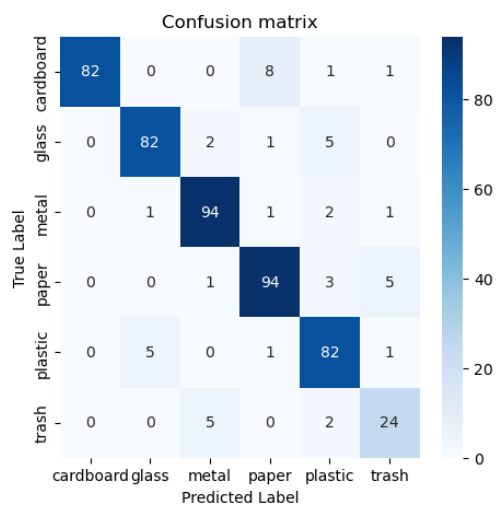
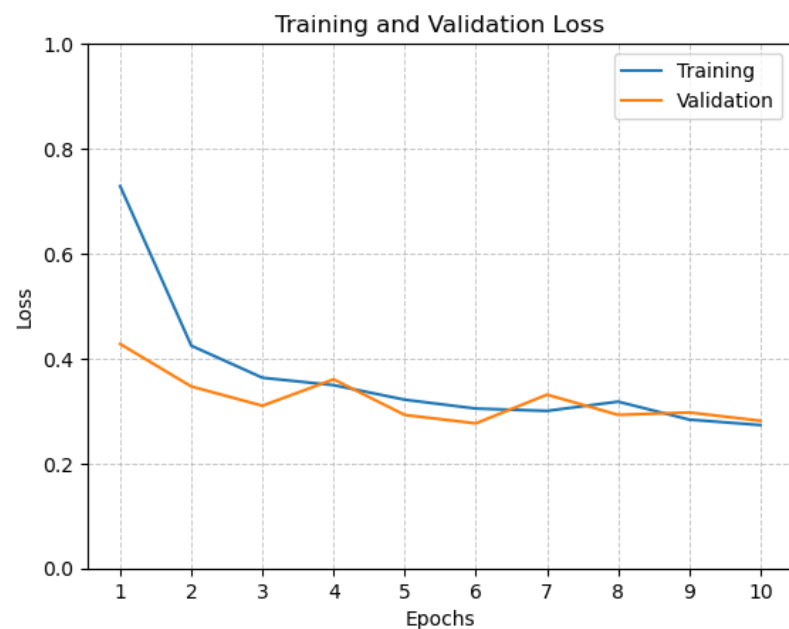
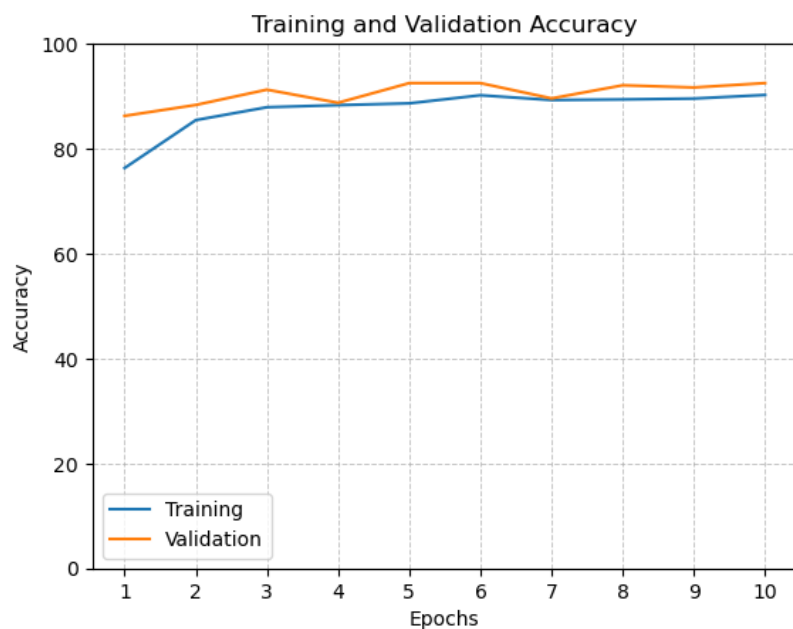
2025-02-19 03:30:59,468 - __main__ - DEBUG - Epoch [10/10]: Train Loss: **0.2732**, Train Acc: 90.24%, Val Loss: **0.2814**, Val Acc: 92.50%, Time: 87 sec

2025-02-19 03:31:26,496 - __main__ - DEBUG - Trial: 1, Test Loss: 0.2789, Test Acc: 90.87%, Avg Time/Image: 0.010 sec

2025-02-19 03:31:26,506 - __main__ - INFO - Final Test: Loss: **0.2789**, Acc: **90.87%**

2025-02-19 03:31:26,513 - __main__ - INFO - Mean processing time per image: 0.010 sec

2025-02-19 03:32:26,563 - __main__ - DEBUG - Total cycle elapsed time: 16 min 10 sec



2025-02-19 03:32:27,117 - __main__ - DEBUG - **Combination 13/21**

2025-02-19 03:32:30,097 - __main__ - DEBUG - train_model() uses mps device

2025-02-19 03:32:30,098 - __main__ - DEBUG - From scratch: **True**

2025-02-19 03:32:30,098 - __main__ - DEBUG - Source folder: **../Data/raw**

2025-02-19 03:32:30,098 - __main__ - DEBUG - New dataset folder: **None**

2025-02-19 03:32:30,099 - __main__ - DEBUG - Total number of elements for training - 1770, validation - 252, testing - 505

2025-02-19 03:32:30,100 - __main__ - DEBUG - Learning Rate: **0.002**, LR Decoy: **0.8**, Batch size: **24**

2025-02-19 03:34:02,803 - __main__ - DEBUG - Epoch [1/10]: Train Loss: **0.7532**, Train Acc: 75.86%, Val Loss: **0.4318**, Val Acc: 85.83%, Time: 93 sec

2025-02-19 03:35:31,318 - __main__ - DEBUG - Epoch [2/10]: Train Loss: **0.4294**, Train Acc: 86.36%, Val Loss: **0.3517**, Val Acc: 88.75%, Time: 89 sec

2025-02-19 03:36:58,604 - __main__ - DEBUG - Epoch [3/10]: Train Loss: **0.3653**, Train Acc: 88.47%, Val Loss: **0.3322**, Val Acc: 90.00%, Time: 87 sec

2025-02-19 03:38:26,731 - __main__ - DEBUG - Epoch [4/10]: Train Loss: **0.3386**, Train Acc: 88.70%, Val Loss: **0.3015**, Val Acc: 90.83%, Time: 88 sec

2025-02-19 03:39:53,943 - __main__ - DEBUG - Epoch [5/10]: Train Loss: **0.3146**, Train Acc: 89.16%, Val Loss: **0.2892**, Val Acc: 92.08%, Time: 87 sec

2025-02-19 03:41:21,123 - __main__ - DEBUG - Epoch [6/10]: Train Loss: **0.2949**, Train Acc: 90.70%, Val Loss: **0.2821**, Val Acc: 91.67%, Time: 87 sec

2025-02-19 03:42:48,927 - __main__ - DEBUG - Epoch [7/10]: Train Loss: **0.2938**, Train Acc: 90.75%, Val Loss: **0.2900**, Val Acc: 92.08%, Time: 88 sec

2025-02-19 03:44:16,857 - __main__ - DEBUG - Epoch [8/10]: Train Loss: **0.3040**, Train Acc: 89.61%, Val Loss: **0.2769**, Val Acc: 92.08%, Time: 88 sec

2025-02-19 03:45:44,466 - __main__ - DEBUG - Epoch [9/10]: Train Loss: **0.2723**, Train Acc: 90.64%, Val Loss: **0.2784**, Val Acc: 91.67%, Time: 88 sec

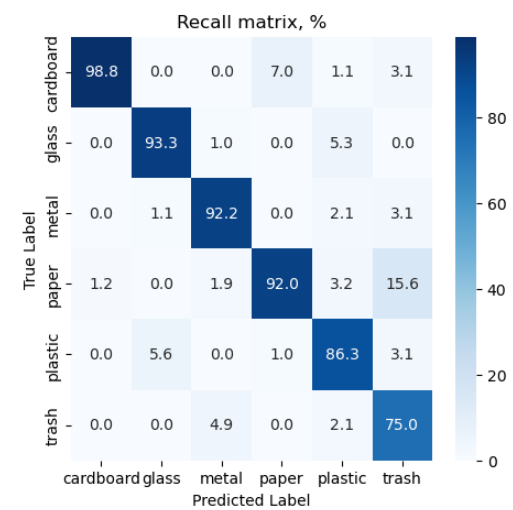
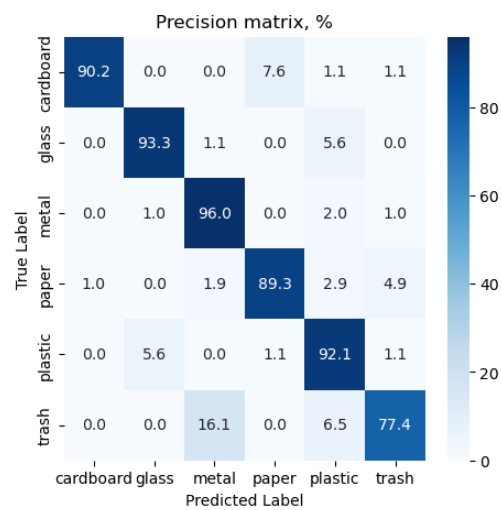
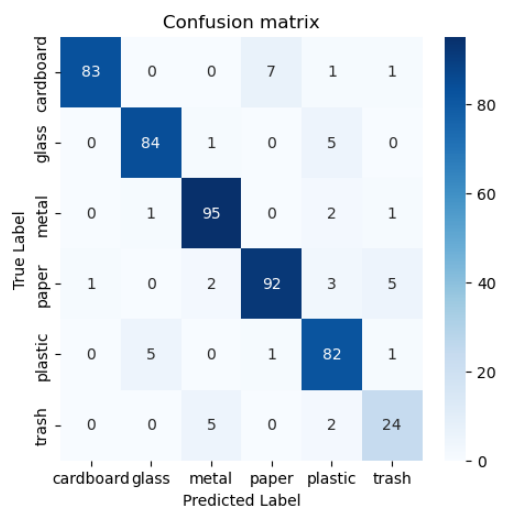
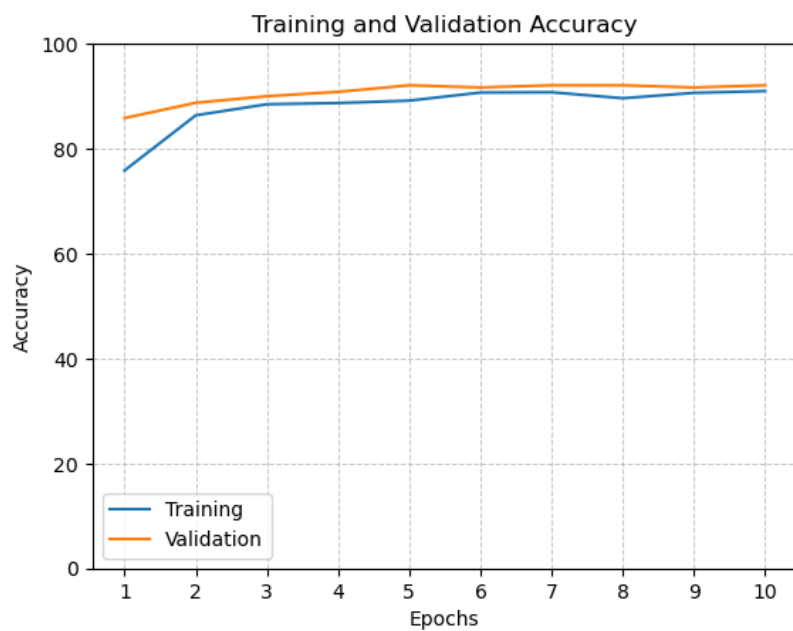
2025-02-19 03:47:11,356 - __main__ - DEBUG - Epoch [10/10]: Train Loss: **0.2650**, Train Acc: 90.98%, Val Loss: **0.2759**, Val Acc: 92.08%, Time: 87 sec

2025-02-19 03:47:38,291 - __main__ - DEBUG - Trial: 1, Test Loss: 0.2666, Test Acc: 91.27%, Avg Time/Image: 0.010 sec

2025-02-19 03:47:38,302 - __main__ - INFO - Final Test: Loss: **0.2666**, Acc: **91.27%**

2025-02-19 03:47:38,312 - __main__ - INFO - Mean processing time per image: 0.010 sec

2025-02-19 03:48:38,359 - __main__ - DEBUG - Total cycle elapsed time: 16 min 11 sec



2025-02-19 03:48:38,900 - __main__ - DEBUG - **Combination 14/21**

2025-02-19 03:48:41,581 - __main__ - DEBUG - train_model() uses mps device

2025-02-19 03:48:41,582 - __main__ - DEBUG - From scratch: **True**

2025-02-19 03:48:41,582 - __main__ - DEBUG - Source folder: **../Data/raw**

2025-02-19 03:48:41,582 - __main__ - DEBUG - New dataset folder: **None**

2025-02-19 03:48:41,582 - __main__ - DEBUG - Total number of elements for training - 1770, validation - 252, testing - 505

2025-02-19 03:48:41,584 - __main__ - DEBUG - Learning Rate: **0.001**, LR Decoy: **0.8**, Batch size: **24**

2025-02-19 03:50:14,417 - __main__ - DEBUG - Epoch [1/10]: Train Loss: **0.9504**, Train Acc: 70.55%, Val Loss: **0.5482**, Val Acc: 85.42%, Time: 93 sec

2025-02-19 03:51:41,771 - __main__ - DEBUG - Epoch [2/10]: Train Loss: **0.5394**, Train Acc: 83.73%, Val Loss: **0.4364**, Val Acc: 86.25%, Time: 87 sec

2025-02-19 03:53:11,511 - __main__ - DEBUG - Epoch [3/10]: Train Loss: **0.4548**, Train Acc: 86.70%, Val Loss: **0.3995**, Val Acc: 86.25%, Time: 90 sec

2025-02-19 03:54:39,691 - __main__ - DEBUG - Epoch [4/10]: Train Loss: **0.4203**, Train Acc: 86.42%, Val Loss: **0.3637**, Val Acc: 88.33%, Time: 88 sec

2025-02-19 03:56:08,025 - __main__ - DEBUG - Epoch [5/10]: Train Loss: **0.3921**, Train Acc: 87.67%, Val Loss: **0.3500**, Val Acc: 89.17%, Time: 88 sec

2025-02-19 03:57:35,363 - __main__ - DEBUG - Epoch [6/10]: Train Loss: **0.3717**, Train Acc: 88.81%, Val Loss: **0.3402**, Val Acc: 89.17%, Time: 87 sec

2025-02-19 03:59:02,343 - __main__ - DEBUG - Epoch [7/10]: Train Loss: **0.3698**, Train Acc: 89.21%, Val Loss: **0.3383**, Val Acc: 89.17%, Time: 87 sec

2025-02-19 04:00:29,467 - __main__ - DEBUG - Epoch [8/10]: Train Loss: **0.3706**, Train Acc: 88.24%, Val Loss: **0.3286**, Val Acc: 89.17%, Time: 87 sec

2025-02-19 04:01:56,331 - __main__ - DEBUG - Epoch [9/10]: Train Loss: **0.3449**, Train Acc: 88.58%, Val Loss: **0.3272**, Val Acc: 89.58%, Time: 87 sec

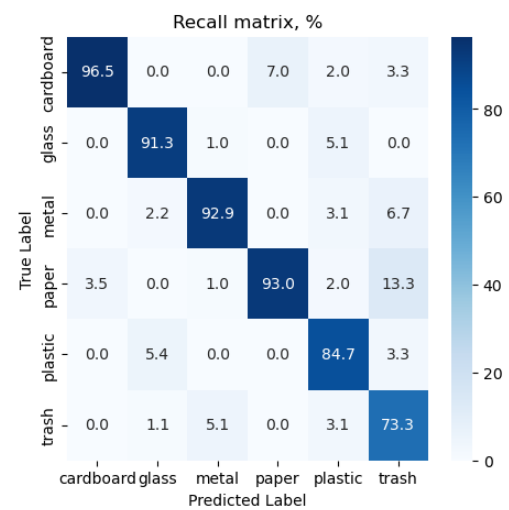
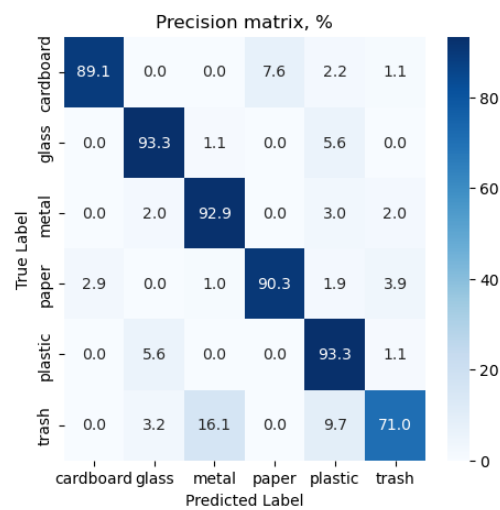
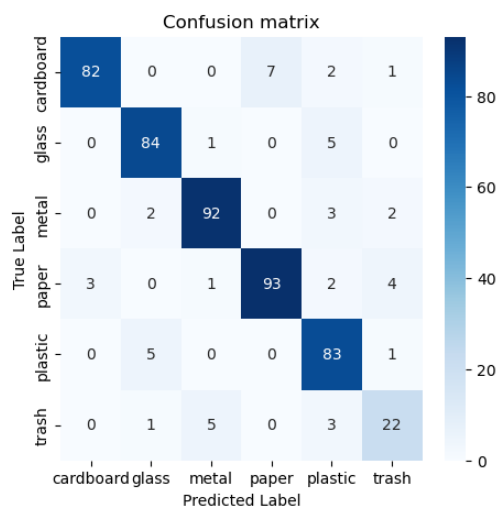
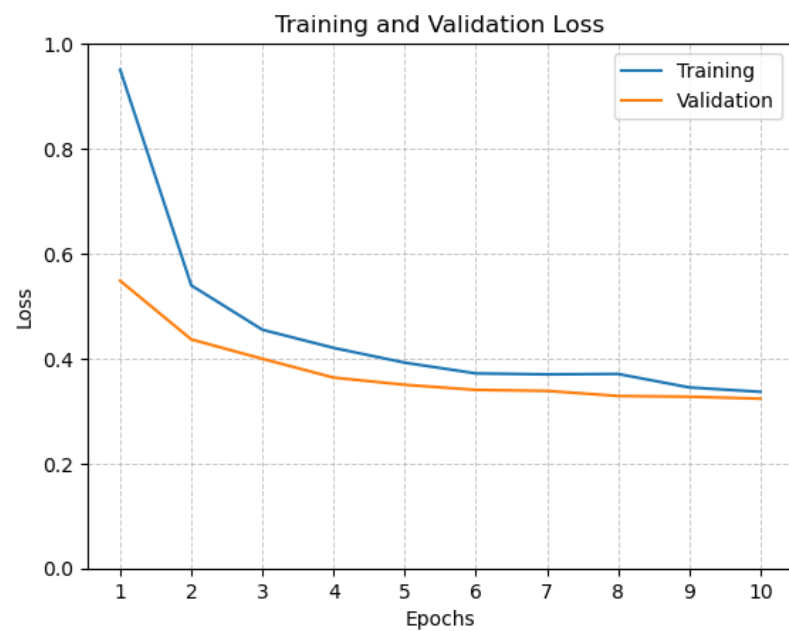
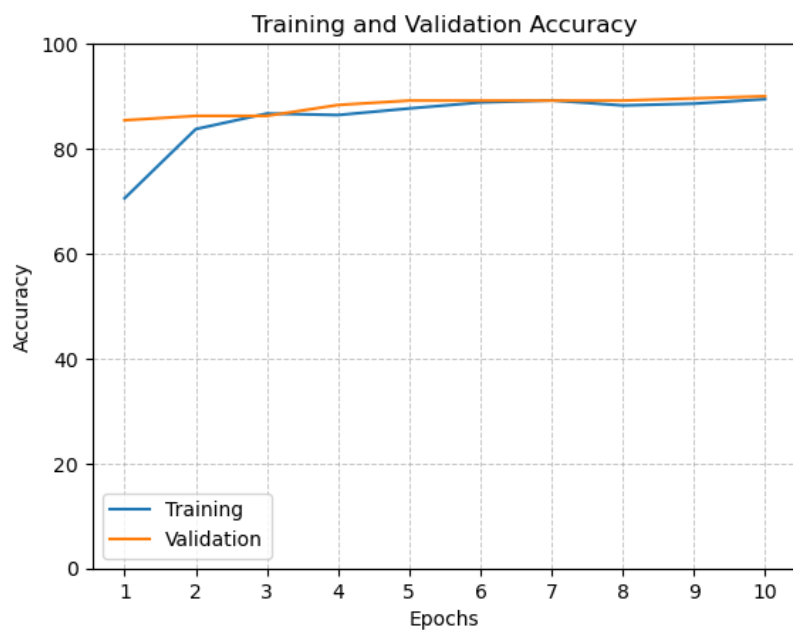
2025-02-19 04:03:23,867 - __main__ - DEBUG - Epoch [10/10]: Train Loss: **0.3366**, Train Acc: 89.44%, Val Loss: **0.3235**, Val Acc: 90.00%, Time: 88 sec

2025-02-19 04:03:51,242 - __main__ - DEBUG - Trial: 1, Test Loss: 0.3128, Test Acc: 90.48%, Avg Time/Image: 0.010 sec

2025-02-19 04:03:51,254 - __main__ - INFO - Final Test: Loss: **0.3128**, Acc: **90.48%**

2025-02-19 04:03:51,263 - __main__ - INFO - Mean processing time per image: 0.010 sec

2025-02-19 04:04:51,321 - __main__ - DEBUG - Total cycle elapsed time: 16 min 12 sec



2025-02-19 04:04:51,882 - __main__ - DEBUG - **Combination 15/21**

2025-02-19 04:04:54,406 - __main__ - DEBUG - train_model() uses mps device

2025-02-19 04:04:54,414 - __main__ - DEBUG - From scratch: **True**

2025-02-19 04:04:54,414 - __main__ - DEBUG - Source folder: **../Data/raw**

2025-02-19 04:04:54,415 - __main__ - DEBUG - New dataset folder: **None**

2025-02-19 04:04:54,415 - __main__ - DEBUG - Total number of elements for training - 1770, validation - 252, testing - 505

2025-02-19 04:04:54,416 - __main__ - DEBUG - Learning Rate: **0.004**, LR Decoy: **0.75**, Batch size: **24**

2025-02-19 04:06:27,122 - __main__ - DEBUG - Epoch [1/10]: Train Loss: **0.6293**, Train Acc: 78.82%, Val Loss: **0.3567**, Val Acc: 87.08%, Time: 93 sec

2025-02-19 04:07:55,293 - __main__ - DEBUG - Epoch [2/10]: Train Loss: **0.3895**, Train Acc: 86.36%, Val Loss: **0.2950**, Val Acc: 91.25%, Time: 88 sec

2025-02-19 04:09:22,843 - __main__ - DEBUG - Epoch [3/10]: Train Loss: **0.3431**, Train Acc: 87.67%, Val Loss: **0.3049**, Val Acc: 92.50%, Time: 88 sec

2025-02-19 04:10:50,805 - __main__ - DEBUG - Epoch [4/10]: Train Loss: **0.3341**, Train Acc: 88.30%, Val Loss: **0.3748**, Val Acc: 90.00%, Time: 88 sec

2025-02-19 04:12:18,598 - __main__ - DEBUG - Epoch [5/10]: Train Loss: **0.2958**, Train Acc: 88.93%, Val Loss: **0.2817**, Val Acc: 94.17%, Time: 88 sec

2025-02-19 04:13:46,425 - __main__ - DEBUG - Epoch [6/10]: Train Loss: **0.2730**, Train Acc: 90.53%, Val Loss: **0.2705**, Val Acc: 93.75%, Time: 88 sec

2025-02-19 04:15:14,055 - __main__ - DEBUG - Epoch [7/10]: Train Loss: **0.2738**, Train Acc: 90.13%, Val Loss: **0.3333**, Val Acc: 90.83%, Time: 88 sec

2025-02-19 04:16:42,024 - __main__ - DEBUG - Epoch [8/10]: Train Loss: **0.2930**, Train Acc: 90.13%, Val Loss: **0.2966**, Val Acc: 92.50%, Time: 88 sec

2025-02-19 04:18:10,018 - __main__ - DEBUG - Epoch [9/10]: Train Loss: **0.2499**, Train Acc: 90.92%, Val Loss: **0.3010**, Val Acc: 92.08%, Time: 88 sec

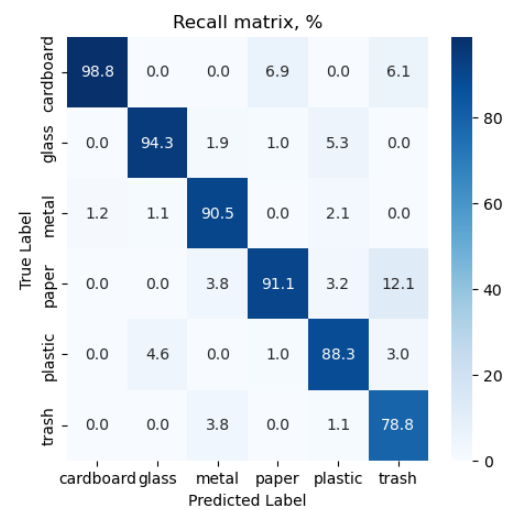
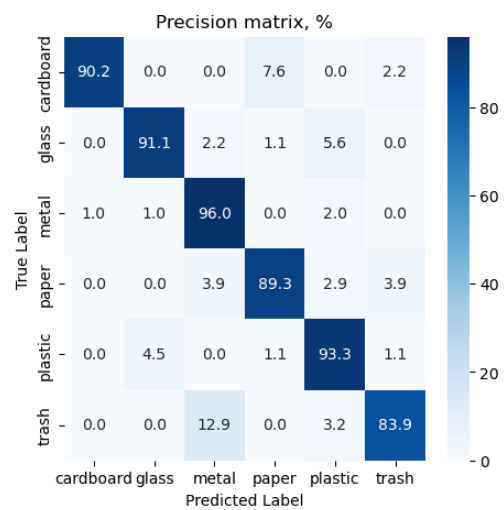
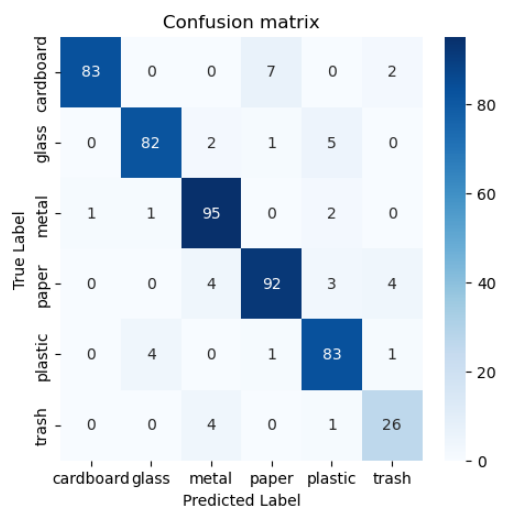
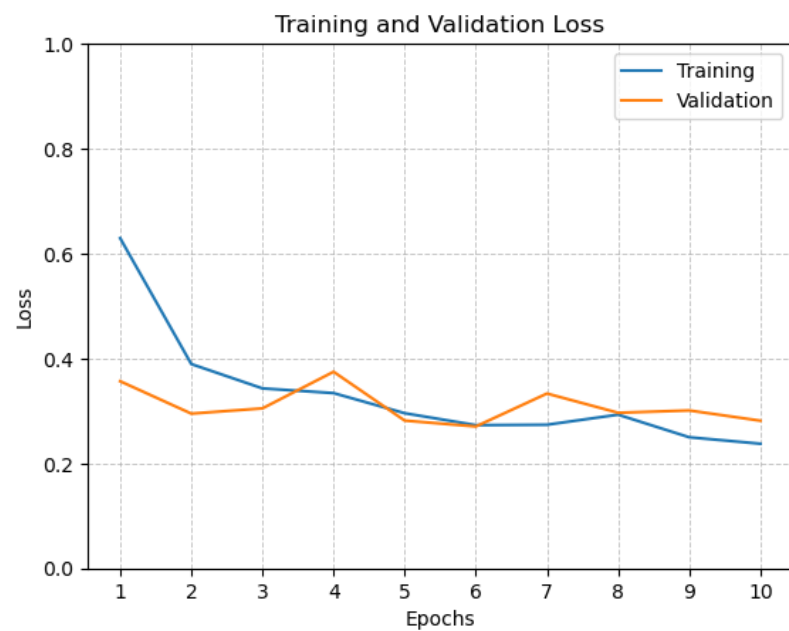
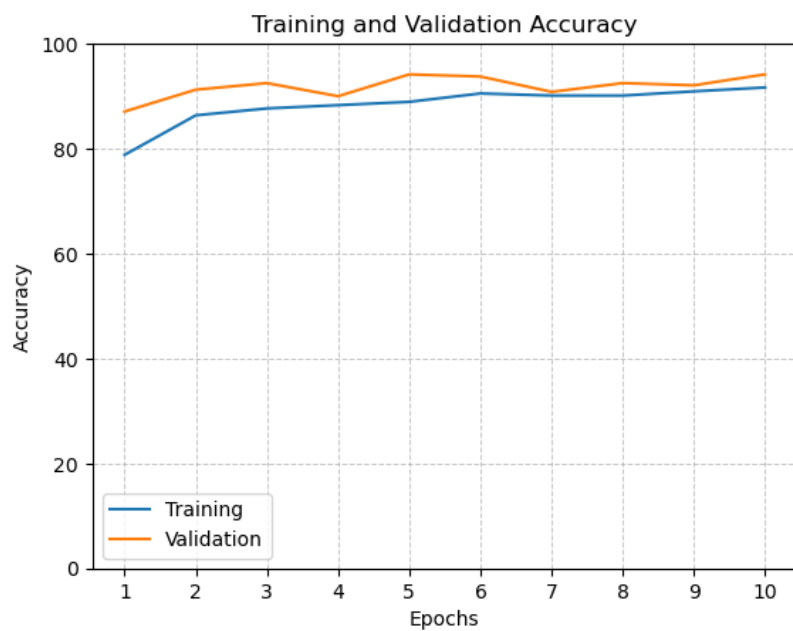
2025-02-19 04:19:37,793 - __main__ - DEBUG - Epoch [10/10]: Train Loss: **0.2376**, Train Acc: 91.67%, Val Loss: **0.2815**, Val Acc: 94.17%, Time: 88 sec

2025-02-19 04:20:04,905 - __main__ - DEBUG - Trial: 1, Test Loss: 0.2798, Test Acc: 91.47%, Avg Time/Image: 0.010 sec

2025-02-19 04:20:04,914 - __main__ - INFO - Final Test: Loss: **0.2798**, Acc: **91.47%**

2025-02-19 04:20:04,922 - __main__ - INFO - Mean processing time per image: 0.010 sec

2025-02-19 04:21:04,975 - __main__ - DEBUG - Total cycle elapsed time: 16 min 13 sec



2025-02-19 04:21:05,551 - __main__ - DEBUG - **Combination 16/21**

2025-02-19 04:21:08,482 - __main__ - DEBUG - train_model() uses mps device

2025-02-19 04:21:08,490 - __main__ - DEBUG - From scratch: **True**

2025-02-19 04:21:08,491 - __main__ - DEBUG - Source folder: **../Data/raw**

2025-02-19 04:21:08,491 - __main__ - DEBUG - New dataset folder: **None**

2025-02-19 04:21:08,491 - __main__ - DEBUG - Total number of elements for training - 1770, validation - 252, testing - 505

2025-02-19 04:21:08,493 - __main__ - DEBUG - Learning Rate: **0.003**, LR Decoy: **0.75**, Batch size: **24**

2025-02-19 04:22:41,858 - __main__ - DEBUG - Epoch [1/10]: Train Loss: **0.6734**, Train Acc: 77.63%, Val Loss: **0.3879**, Val Acc: 87.08%, Time: 93 sec

2025-02-19 04:24:09,572 - __main__ - DEBUG - Epoch [2/10]: Train Loss: **0.4082**, Train Acc: 85.33%, Val Loss: **0.3069**, Val Acc: 90.00%, Time: 88 sec

2025-02-19 04:25:38,098 - __main__ - DEBUG - Epoch [3/10]: Train Loss: **0.3544**, Train Acc: 87.33%, Val Loss: **0.3079**, Val Acc: 91.67%, Time: 89 sec

2025-02-19 04:27:05,833 - __main__ - DEBUG - Epoch [4/10]: Train Loss: **0.3452**, Train Acc: 88.07%, Val Loss: **0.3803**, Val Acc: 88.33%, Time: 88 sec

2025-02-19 04:28:33,496 - __main__ - DEBUG - Epoch [5/10]: Train Loss: **0.3131**, Train Acc: 88.76%, Val Loss: **0.2829**, Val Acc: 94.17%, Time: 88 sec

2025-02-19 04:30:00,906 - __main__ - DEBUG - Epoch [6/10]: Train Loss: **0.2929**, Train Acc: 90.07%, Val Loss: **0.2693**, Val Acc: 93.75%, Time: 87 sec

2025-02-19 04:31:28,322 - __main__ - DEBUG - Epoch [7/10]: Train Loss: **0.2904**, Train Acc: 89.61%, Val Loss: **0.3305**, Val Acc: 90.83%, Time: 87 sec

2025-02-19 04:32:56,162 - __main__ - DEBUG - Epoch [8/10]: Train Loss: **0.3085**, Train Acc: 89.61%, Val Loss: **0.2902**, Val Acc: 92.50%, Time: 88 sec

2025-02-19 04:34:25,892 - __main__ - DEBUG - Epoch [9/10]: Train Loss: **0.2745**, Train Acc: 89.73%, Val Loss: **0.2948**, Val Acc: 91.25%, Time: 90 sec

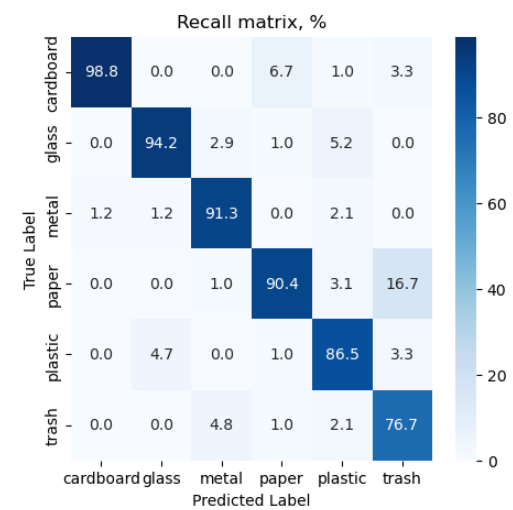
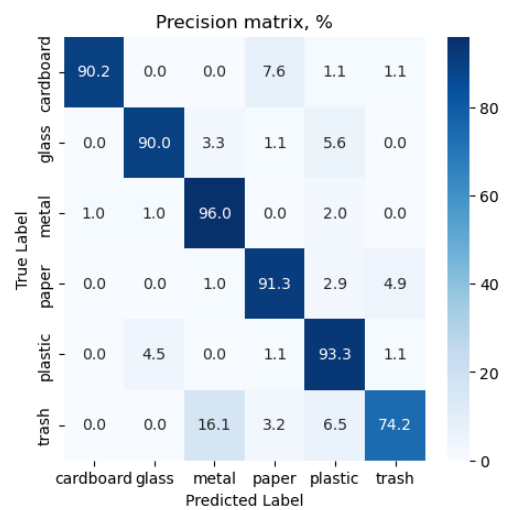
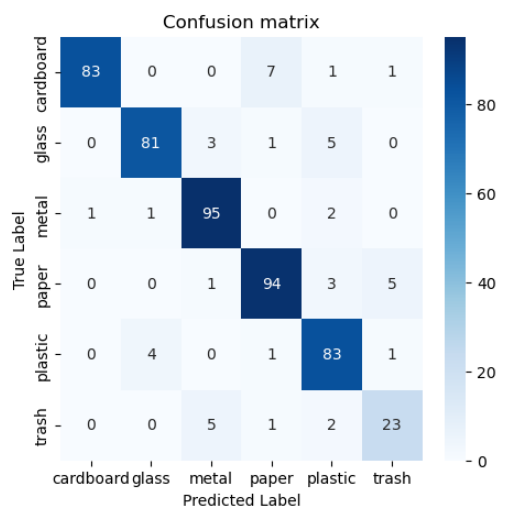
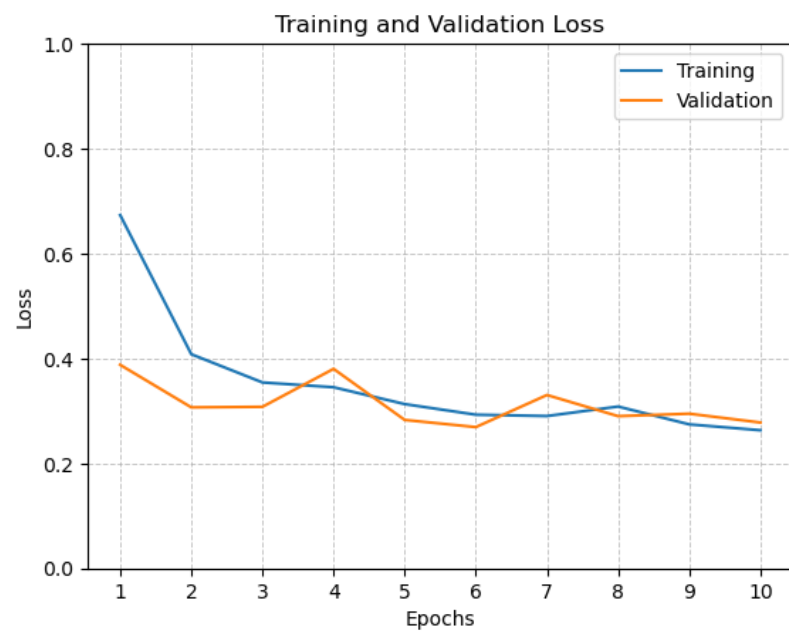
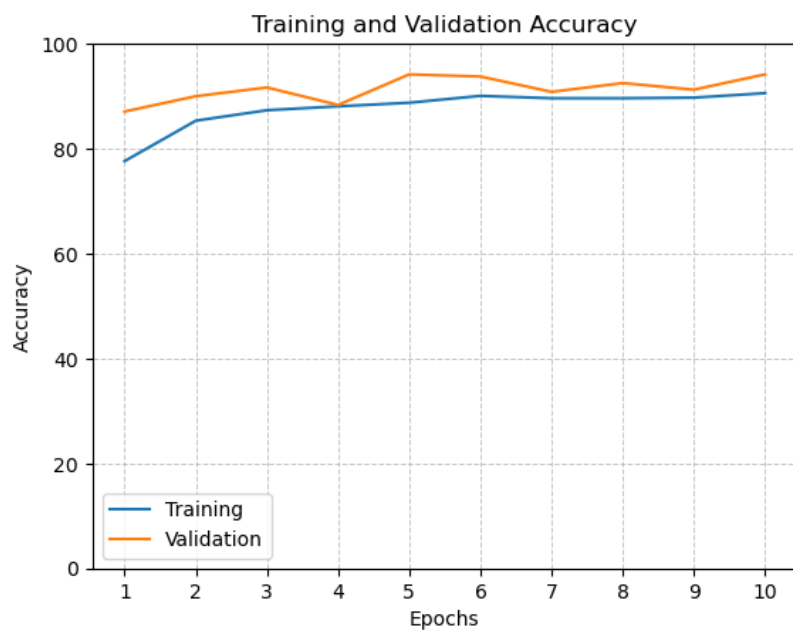
2025-02-19 04:35:52,740 - __main__ - DEBUG - Epoch [10/10]: Train Loss: **0.2633**, Train Acc: 90.58%, Val Loss: **0.2780**, Val Acc: 94.17%, Time: 87 sec

2025-02-19 04:36:19,723 - __main__ - DEBUG - Trial: 1, Test Loss: 0.2787, Test Acc: 91.07%, Avg Time/Image: 0.010 sec

2025-02-19 04:36:19,733 - __main__ - INFO - Final Test: Loss: **0.2787**, Acc: **91.07%**

2025-02-19 04:36:19,741 - __main__ - INFO - Mean processing time per image: 0.010 sec

2025-02-19 04:37:19,789 - __main__ - DEBUG - Total cycle elapsed time: 16 min 14 sec



2025-02-19 04:37:20,326 - __main__ - DEBUG - **Combination 17/21**

2025-02-19 04:37:22,818 - __main__ - DEBUG - train_model() uses mps device

2025-02-19 04:37:22,825 - __main__ - DEBUG - From scratch: **True**

2025-02-19 04:37:22,825 - __main__ - DEBUG - Source folder: **../Data/raw**

2025-02-19 04:37:22,825 - __main__ - DEBUG - New dataset folder: **None**

2025-02-19 04:37:22,826 - __main__ - DEBUG - Total number of elements for training - 1770, validation - 252, testing - 505

2025-02-19 04:37:22,827 - __main__ - DEBUG - Learning Rate: **0.00275**, LR Decoy: **0.75**, Batch size: **24**

2025-02-19 04:38:56,148 - __main__ - DEBUG - Epoch [1/10]: Train Loss: **0.6862**, Train Acc: 77.23%, Val Loss: **0.4106**, Val Acc: 86.25%, Time: 93 sec

2025-02-19 04:40:28,695 - __main__ - DEBUG - Epoch [2/10]: Train Loss: **0.4043**, Train Acc: 86.76%, Val Loss: **0.3466**, Val Acc: 88.75%, Time: 93 sec

2025-02-19 04:41:57,693 - __main__ - DEBUG - Epoch [3/10]: Train Loss: **0.3478**, Train Acc: 88.41%, Val Loss: **0.3310**, Val Acc: 89.17%, Time: 89 sec

2025-02-19 04:43:26,442 - __main__ - DEBUG - Epoch [4/10]: Train Loss: **0.3251**, Train Acc: 89.44%, Val Loss: **0.3045**, Val Acc: 90.00%, Time: 89 sec

2025-02-19 04:44:54,487 - __main__ - DEBUG - Epoch [5/10]: Train Loss: **0.3122**, Train Acc: 89.21%, Val Loss: **0.3022**, Val Acc: 90.00%, Time: 88 sec

2025-02-19 04:46:22,525 - __main__ - DEBUG - Epoch [6/10]: Train Loss: **0.2982**, Train Acc: 91.21%, Val Loss: **0.2970**, Val Acc: 89.58%, Time: 88 sec

2025-02-19 04:47:51,155 - __main__ - DEBUG - Epoch [7/10]: Train Loss: **0.3036**, Train Acc: 90.64%, Val Loss: **0.3012**, Val Acc: 89.58%, Time: 89 sec

2025-02-19 04:49:18,864 - __main__ - DEBUG - Epoch [8/10]: Train Loss: **0.3093**, Train Acc: 89.84%, Val Loss: **0.2930**, Val Acc: 89.58%, Time: 88 sec

2025-02-19 04:50:46,225 - __main__ - DEBUG - Epoch [9/10]: Train Loss: **0.2858**, Train Acc: 90.70%, Val Loss: **0.2965**, Val Acc: 89.58%, Time: 87 sec

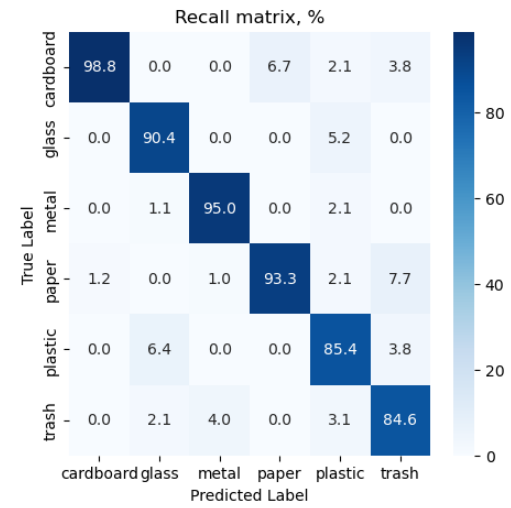
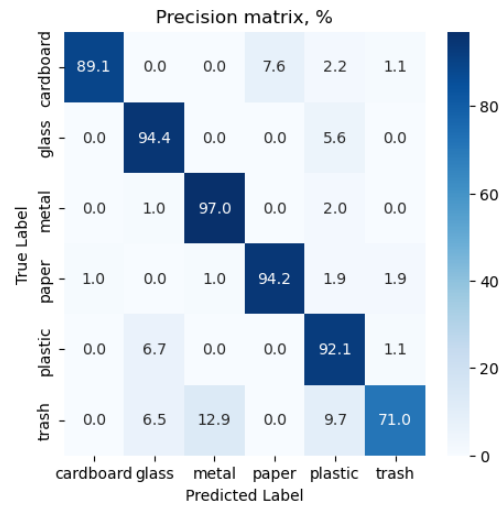
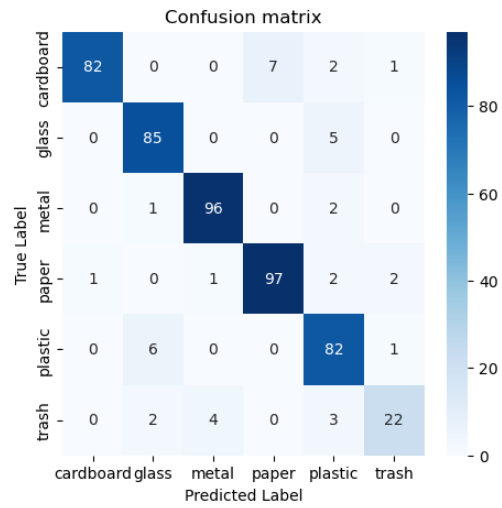
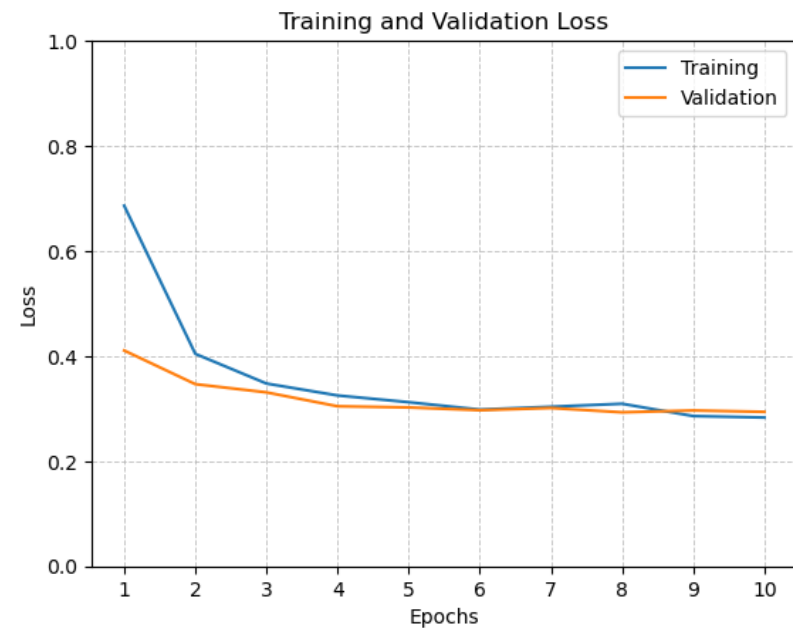
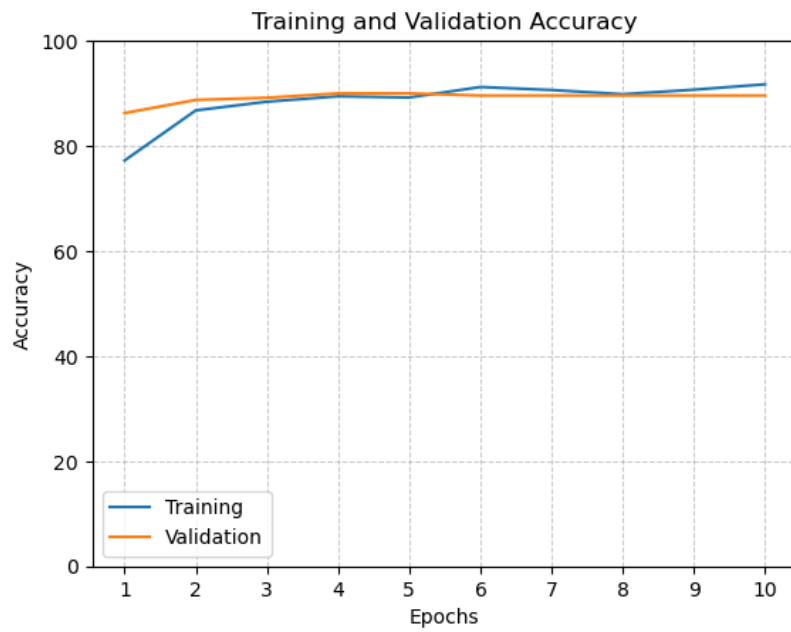
2025-02-19 04:52:14,041 - __main__ - DEBUG - Epoch [10/10]: Train Loss: **0.2831**, Train Acc: 91.72%, Val Loss: **0.2939**, Val Acc: 89.58%, Time: 88 sec

2025-02-19 04:52:41,174 - __main__ - DEBUG - Trial: 1, Test Loss: 0.2865, Test Acc: 92.06%, Avg Time/Image: 0.010 sec

2025-02-19 04:52:41,184 - __main__ - INFO - Final Test: Loss: **0.2865**, Acc: **92.06%**

2025-02-19 04:52:41,192 - __main__ - INFO - Mean processing time per image: 0.010 sec

2025-02-19 04:53:41,245 - __main__ - DEBUG - Total cycle elapsed time: 16 min 21 sec



2025-02-19 04:53:41,815 - __main__ - DEBUG - **Combination 18/21**

2025-02-19 04:53:44,204 - __main__ - DEBUG - train_model() uses mps device

2025-02-19 04:53:44,206 - __main__ - DEBUG - From scratch: **True**

2025-02-19 04:53:44,206 - __main__ - DEBUG - Source folder: **../Data/raw**

2025-02-19 04:53:44,207 - __main__ - DEBUG - New dataset folder: **None**

2025-02-19 04:53:44,207 - __main__ - DEBUG - Total number of elements for training - 1770, validation - 252, testing - 505

2025-02-19 04:53:44,208 - __main__ - DEBUG - Learning Rate: **0.0025**, LR Decoy: **0.75**, Batch size: **24**

2025-02-19 04:55:17,680 - __main__ - DEBUG - Epoch [1/10]: Train Loss: **0.7052**, Train Acc: 76.77%, Val Loss: **0.4108**, Val Acc: 86.25%, Time: 93 sec

2025-02-19 04:56:45,396 - __main__ - DEBUG - Epoch [2/10]: Train Loss: **0.4071**, Train Acc: 86.53%, Val Loss: **0.3301**, Val Acc: 90.00%, Time: 88 sec

2025-02-19 04:58:12,621 - __main__ - DEBUG - Epoch [3/10]: Train Loss: **0.3500**, Train Acc: 88.64%, Val Loss: **0.3178**, Val Acc: 90.00%, Time: 87 sec

2025-02-19 04:59:40,218 - __main__ - DEBUG - Epoch [4/10]: Train Loss: **0.3250**, Train Acc: 88.93%, Val Loss: **0.2994**, Val Acc: 90.83%, Time: 88 sec

2025-02-19 05:01:08,195 - __main__ - DEBUG - Epoch [5/10]: Train Loss: **0.3037**, Train Acc: 89.78%, Val Loss: **0.2842**, Val Acc: 92.50%, Time: 88 sec

2025-02-19 05:02:37,340 - __main__ - DEBUG - Epoch [6/10]: Train Loss: **0.2856**, Train Acc: 90.98%, Val Loss: **0.2736**, Val Acc: 92.08%, Time: 89 sec

2025-02-19 05:04:04,510 - __main__ - DEBUG - Epoch [7/10]: Train Loss: **0.2846**, Train Acc: 90.92%, Val Loss: **0.2859**, Val Acc: 92.08%, Time: 87 sec

2025-02-19 05:05:31,676 - __main__ - DEBUG - Epoch [8/10]: Train Loss: **0.2984**, Train Acc: 89.73%, Val Loss: **0.2721**, Val Acc: 92.50%, Time: 87 sec

2025-02-19 05:06:58,736 - __main__ - DEBUG - Epoch [9/10]: Train Loss: **0.2673**, Train Acc: 90.47%, Val Loss: **0.2734**, Val Acc: 92.08%, Time: 87 sec

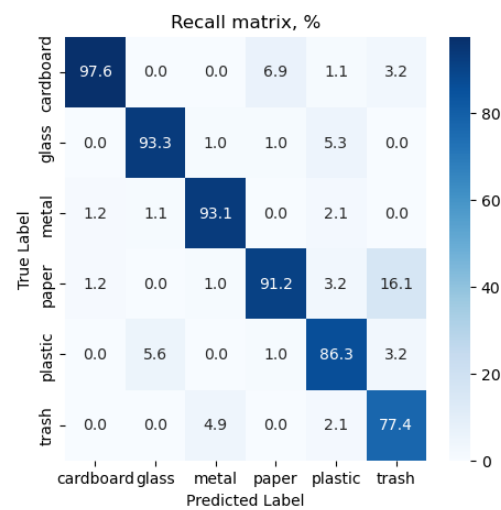
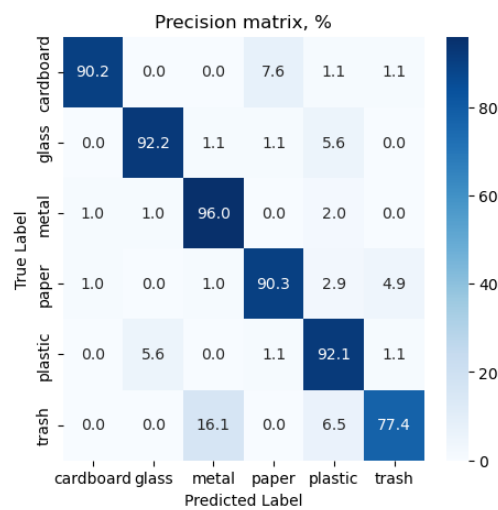
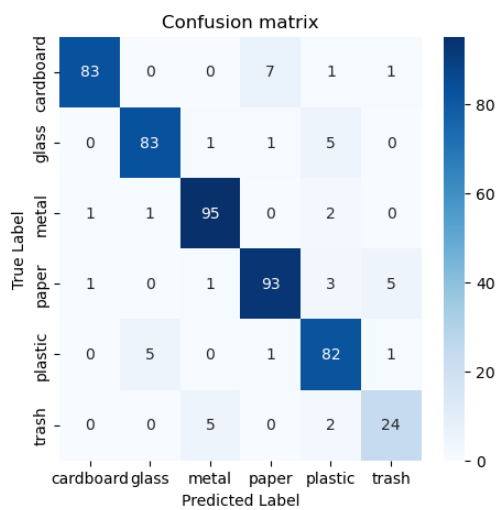
2025-02-19 05:08:31,107 - __main__ - DEBUG - Epoch [10/10]: Train Loss: **0.2613**, Train Acc: 91.21%, Val Loss: **0.2701**, Val Acc: 92.08%, Time: 92 sec

2025-02-19 05:08:58,026 - __main__ - DEBUG - Trial: 1, Test Loss: 0.2646, Test Acc: 91.27%, Avg Time/Image: 0.010 sec

2025-02-19 05:08:58,037 - __main__ - INFO - Final Test: Loss: **0.2646**, Acc: **91.27%**

2025-02-19 05:08:58,046 - __main__ - INFO - Mean processing time per image: 0.010 sec

2025-02-19 05:09:58,095 - __main__ - DEBUG - Total cycle elapsed time: 16 min 16 sec



2025-02-19 05:09:58,638 - __main__ - DEBUG - **Combination 19/21**

2025-02-19 05:10:01,057 - __main__ - DEBUG - train_model() uses mps device

2025-02-19 05:10:01,065 - __main__ - DEBUG - From scratch: **True**

2025-02-19 05:10:01,066 - __main__ - DEBUG - Source folder: **../Data/raw**

2025-02-19 05:10:01,066 - __main__ - DEBUG - New dataset folder: **None**

2025-02-19 05:10:01,066 - __main__ - DEBUG - Total number of elements for training - 1770, validation - 252, testing - 505

2025-02-19 05:10:01,068 - __main__ - DEBUG - Learning Rate: **0.00225**, LR Decoy: **0.75**, Batch size: **24**

2025-02-19 05:11:34,696 - __main__ - DEBUG - Epoch [1/10]: Train Loss: **0.7266**, Train Acc: 76.43%, Val Loss: **0.4195**, Val Acc: 86.25%, Time: 94 sec

2025-02-19 05:13:04,487 - __main__ - DEBUG - Epoch [2/10]: Train Loss: **0.4174**, Train Acc: 86.53%, Val Loss: **0.3419**, Val Acc: 89.17%, Time: 90 sec

2025-02-19 05:14:32,933 - __main__ - DEBUG - Epoch [3/10]: Train Loss: **0.3576**, Train Acc: 88.58%, Val Loss: **0.3255**, Val Acc: 90.00%, Time: 88 sec

2025-02-19 05:16:00,415 - __main__ - DEBUG - Epoch [4/10]: Train Loss: **0.3326**, Train Acc: 88.76%, Val Loss: **0.2995**, Val Acc: 90.83%, Time: 87 sec

2025-02-19 05:17:27,594 - __main__ - DEBUG - Epoch [5/10]: Train Loss: **0.3113**, Train Acc: 89.10%, Val Loss: **0.2875**, Val Acc: 91.67%, Time: 87 sec

2025-02-19 05:19:00,573 - __main__ - DEBUG - Epoch [6/10]: Train Loss: **0.2927**, Train Acc: 91.04%, Val Loss: **0.2804**, Val Acc: 91.67%, Time: 93 sec

2025-02-19 05:20:27,349 - __main__ - DEBUG - Epoch [7/10]: Train Loss: **0.2930**, Train Acc: 90.81%, Val Loss: **0.2869**, Val Acc: 92.08%, Time: 87 sec

2025-02-19 05:21:53,899 - __main__ - DEBUG - Epoch [8/10]: Train Loss: **0.3045**, Train Acc: 89.50%, Val Loss: **0.2763**, Val Acc: 91.67%, Time: 87 sec

2025-02-19 05:23:20,919 - __main__ - DEBUG - Epoch [9/10]: Train Loss: **0.2752**, Train Acc: 89.95%, Val Loss: **0.2785**, Val Acc: 91.67%, Time: 87 sec

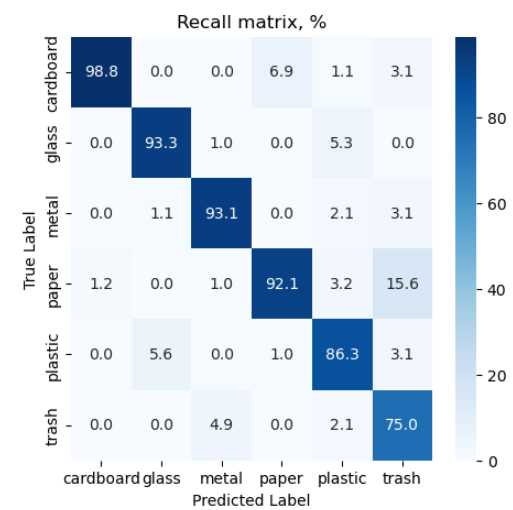
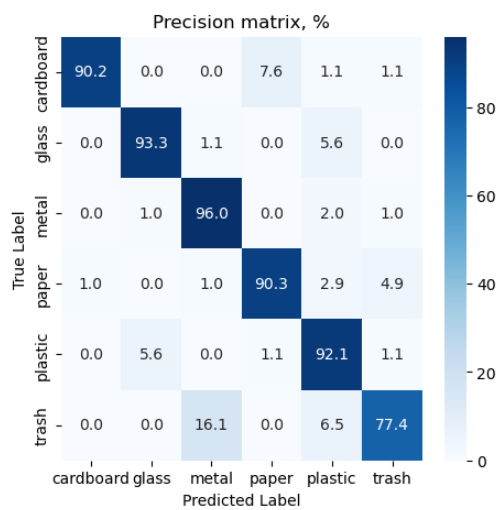
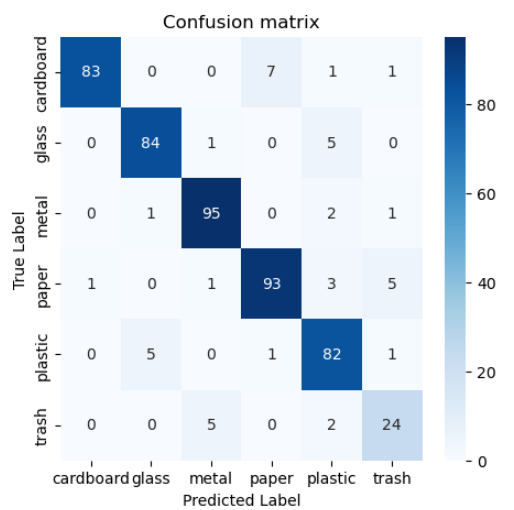
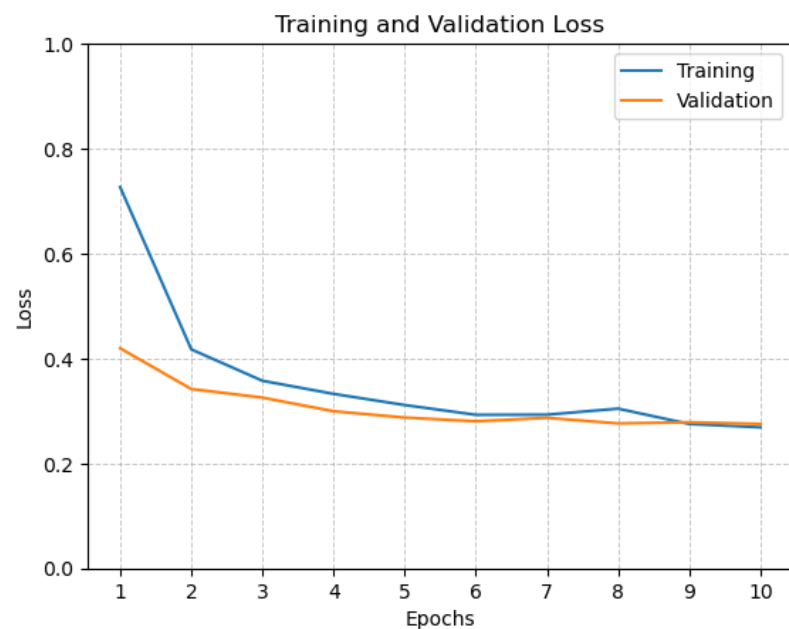
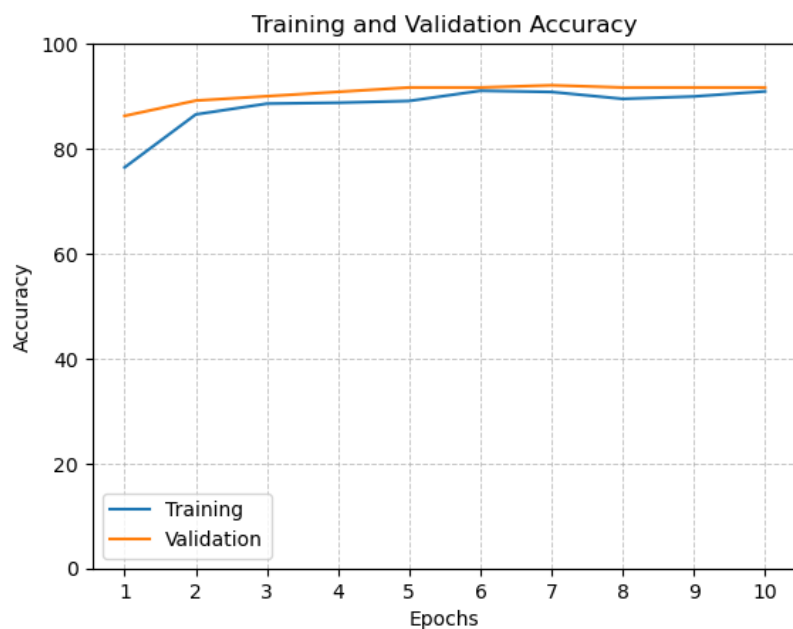
2025-02-19 05:24:48,136 - __main__ - DEBUG - Epoch [10/10]: Train Loss: **0.2689**, Train Acc: 90.92%, Val Loss: **0.2754**, Val Acc: 91.67%, Time: 87 sec

2025-02-19 05:25:15,728 - __main__ - DEBUG - Trial: 1, Test Loss: 0.2676, Test Acc: 91.47%, Avg Time/Image: 0.010 sec

2025-02-19 05:25:15,747 - __main__ - INFO - Final Test: Loss: **0.2676**, Acc: **91.47%**

2025-02-19 05:25:15,751 - __main__ - INFO - Mean processing time per image: 0.010 sec

2025-02-19 05:26:15,799 - __main__ - DEBUG - Total cycle elapsed time: 16 min 17 sec



2025-02-19 05:26:16,314 - __main__ - DEBUG - **Combination 20/21**

2025-02-19 05:26:18,794 - __main__ - DEBUG - train_model() uses mps device

2025-02-19 05:26:18,795 - __main__ - DEBUG - From scratch: **True**

2025-02-19 05:26:18,796 - __main__ - DEBUG - Source folder: **../Data/raw**

2025-02-19 05:26:18,796 - __main__ - DEBUG - New dataset folder: **None**

2025-02-19 05:26:18,796 - __main__ - DEBUG - Total number of elements for training - 1770, validation - 252, testing - 505

2025-02-19 05:26:18,797 - __main__ - DEBUG - Learning Rate: **0.002**, LR Decoy: **0.75**, Batch size: **24**

2025-02-19 05:27:51,844 - __main__ - DEBUG - Epoch [1/10]: Train Loss: **0.7535**, Train Acc: 75.86%, Val Loss: **0.4322**, Val Acc: 86.25%, Time: 93 sec

2025-02-19 05:29:21,894 - __main__ - DEBUG - Epoch [2/10]: Train Loss: **0.4309**, Train Acc: 86.30%, Val Loss: **0.3539**, Val Acc: 88.75%, Time: 90 sec

2025-02-19 05:30:49,530 - __main__ - DEBUG - Epoch [3/10]: Train Loss: **0.3686**, Train Acc: 88.36%, Val Loss: **0.3338**, Val Acc: 90.00%, Time: 88 sec

2025-02-19 05:32:16,387 - __main__ - DEBUG - Epoch [4/10]: Train Loss: **0.3437**, Train Acc: 88.58%, Val Loss: **0.3058**, Val Acc: 90.00%, Time: 87 sec

2025-02-19 05:33:43,404 - __main__ - DEBUG - Epoch [5/10]: Train Loss: **0.3221**, Train Acc: 88.70%, Val Loss: **0.2953**, Val Acc: 91.67%, Time: 87 sec

2025-02-19 05:35:10,190 - __main__ - DEBUG - Epoch [6/10]: Train Loss: **0.3036**, Train Acc: 90.47%, Val Loss: **0.2884**, Val Acc: 91.25%, Time: 87 sec

2025-02-19 05:36:36,996 - __main__ - DEBUG - Epoch [7/10]: Train Loss: **0.3039**, Train Acc: 90.75%, Val Loss: **0.2929**, Val Acc: 92.08%, Time: 87 sec

2025-02-19 05:38:03,841 - __main__ - DEBUG - Epoch [8/10]: Train Loss: **0.3140**, Train Acc: 89.33%, Val Loss: **0.2829**, Val Acc: 92.08%, Time: 87 sec

2025-02-19 05:39:30,634 - __main__ - DEBUG - Epoch [9/10]: Train Loss: **0.2860**, Train Acc: 89.78%, Val Loss: **0.2851**, Val Acc: 91.67%, Time: 87 sec

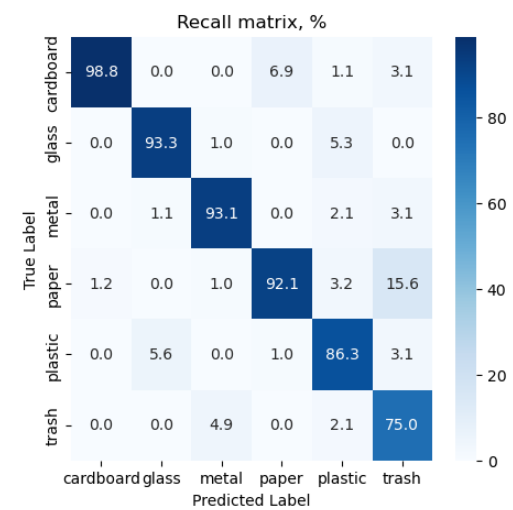
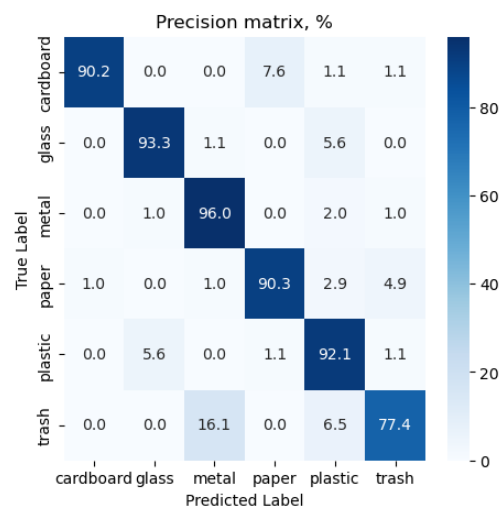
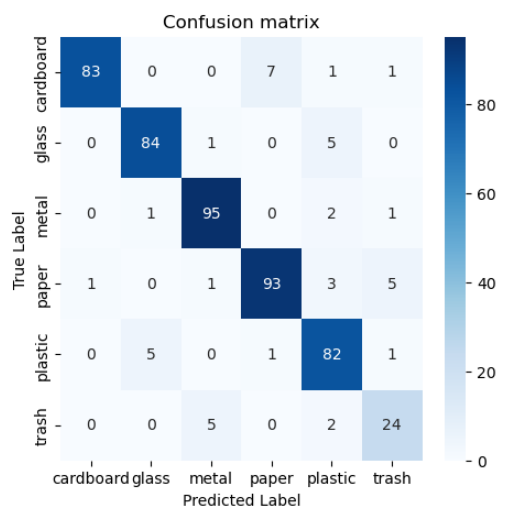
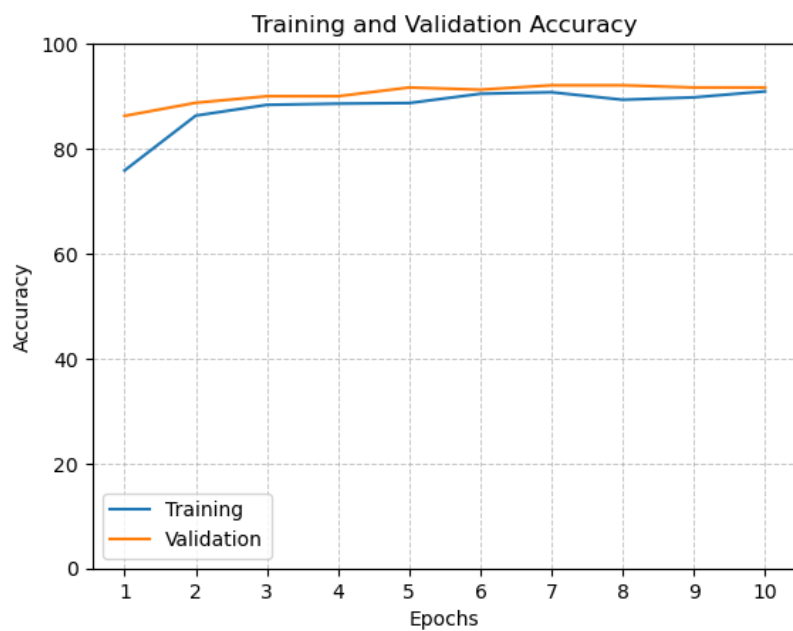
2025-02-19 05:40:57,476 - __main__ - DEBUG - Epoch [10/10]: Train Loss: **0.2794**, Train Acc: 90.92%, Val Loss: **0.2819**, Val Acc: 91.67%, Time: 87 sec

2025-02-19 05:41:24,805 - __main__ - DEBUG - Trial: 1, Test Loss: 0.2734, Test Acc: 91.47%, Avg Time/Image: 0.010 sec

2025-02-19 05:41:24,817 - __main__ - INFO - Final Test: Loss: **0.2734**, Acc: **91.47%**

2025-02-19 05:41:24,827 - __main__ - INFO - Mean processing time per image: 0.010 sec

2025-02-19 05:42:24,882 - __main__ - DEBUG - Total cycle elapsed time: 16 min 9 sec



2025-02-19 05:42:25,434 - __main__ - DEBUG - **Combination 21/21**

2025-02-19 05:42:28,093 - __main__ - DEBUG - train_model() uses mps device

2025-02-19 05:42:28,093 - __main__ - DEBUG - From scratch: **True**

2025-02-19 05:42:28,094 - __main__ - DEBUG - Source folder: **../Data/raw**

2025-02-19 05:42:28,094 - __main__ - DEBUG - New dataset folder: **None**

2025-02-19 05:42:28,094 - __main__ - DEBUG - Total number of elements for training - 1770, validation - 252, testing - 505

2025-02-19 05:42:28,095 - __main__ - DEBUG - Learning Rate: **0.001**, LR Decoy: **0.75**, Batch size: **24**

2025-02-19 05:44:02,179 - __main__ - DEBUG - Epoch [1/10]: Train Loss: **0.9504**, Train Acc: 70.55%, Val Loss: **0.5484**, Val Acc: 85.42%, Time: 94 sec

2025-02-19 05:45:31,729 - __main__ - DEBUG - Epoch [2/10]: Train Loss: **0.5420**, Train Acc: 83.62%, Val Loss: **0.4409**, Val Acc: 85.83%, Time: 90 sec

2025-02-19 05:46:59,751 - __main__ - DEBUG - Epoch [3/10]: Train Loss: **0.4606**, Train Acc: 86.76%, Val Loss: **0.4066**, Val Acc: 86.25%, Time: 88 sec

2025-02-19 05:48:26,809 - __main__ - DEBUG - Epoch [4/10]: Train Loss: **0.4280**, Train Acc: 86.02%, Val Loss: **0.3734**, Val Acc: 87.50%, Time: 87 sec

2025-02-19 05:49:54,228 - __main__ - DEBUG - Epoch [5/10]: Train Loss: **0.4019**, Train Acc: 87.39%, Val Loss: **0.3619**, Val Acc: 87.92%, Time: 87 sec

2025-02-19 05:51:21,492 - __main__ - DEBUG - Epoch [6/10]: Train Loss: **0.3841**, Train Acc: 88.64%, Val Loss: **0.3541**, Val Acc: 88.75%, Time: 87 sec

2025-02-19 05:52:48,735 - __main__ - DEBUG - Epoch [7/10]: Train Loss: **0.3839**, Train Acc: 88.70%, Val Loss: **0.3513**, Val Acc: 88.33%, Time: 87 sec

2025-02-19 05:54:15,735 - __main__ - DEBUG - Epoch [8/10]: Train Loss: **0.3850**, Train Acc: 88.18%, Val Loss: **0.3452**, Val Acc: 89.17%, Time: 87 sec

2025-02-19 05:55:42,731 - __main__ - DEBUG - Epoch [9/10]: Train Loss: **0.3629**, Train Acc: 88.36%, Val Loss: **0.3423**, Val Acc: 88.75%, Time: 87 sec

2025-02-19 05:57:10,002 - __main__ - DEBUG - Epoch [10/10]: Train Loss: **0.3554**, Train Acc: 89.21%, Val Loss: **0.3397**, Val Acc: 89.58%, Time: 87 sec

2025-02-19 05:57:36,967 - __main__ - DEBUG - Trial: 1, Test Loss: 0.3278, Test Acc: 90.48%, Avg Time/Image: 0.010 sec

2025-02-19 05:57:36,979 - __main__ - INFO - Final Test: Loss: **0.3278**, Acc: **90.48%**

2025-02-19 05:57:36,988 - __main__ - INFO - Mean processing time per image: 0.010 sec

2025-02-19 05:58:37,040 - __main__ - DEBUG - Total cycle elapsed time: 16 min 12 sec

