**AAPL\_INTERACTION:**

0.328 Precision

0.324 Recall

0.325 F1

[[112 63 97 49]

[ 69 86 74 60]

[ 77 57 79 62]

[ 46 71 78 110]]

precision recall f1-score support

high 0.37 0.35 0.36 321

low 0.31 0.30 0.30 289

medium 0.24 0.29 0.26 275

none 0.39 0.36 0.38 305

accuracy 0.33 1190

macro avg 0.33 0.32 0.32 1190

weighted avg 0.33 0.33 0.33 1190

**AAPL\_INTERACTION\_RF:**

0.409 Precision

0.401 Recall

0.402 F1

[[167 62 69 23]

[ 73 100 69 47]

[ 93 53 91 38]

[ 61 62 58 124]]

precision recall f1-score support

high 0.42 0.52 0.47 321

low 0.36 0.35 0.35 289

medium 0.32 0.33 0.32 275

none 0.53 0.41 0.46 305

accuracy 0.41 1190

macro avg 0.41 0.40 0.40 1190

weighted avg 0.41 0.41 0.41 1190

**AMZN\_INTERACTION:**

0.333 Precision

0.333 Recall

0.333 F1

[[100 82 87 50]

[ 68 77 82 64]

[ 65 65 84 61]

[ 51 73 44 137]]

precision recall f1-score support

high 0.35 0.31 0.33 319

low 0.26 0.26 0.26 291

medium 0.28 0.31 0.29 275

none 0.44 0.45 0.44 305

accuracy 0.33 1190

macro avg 0.33 0.33 0.33 1190

weighted avg 0.34 0.33 0.33 1190

**AMZN­\_INTERACTION\_RF:**

0.363 Precision

0.348 Recall

0.354 F1

[[128 92 85 14]

[ 79 81 73 58]

[ 97 77 72 29]

[ 45 69 53 138]]

precision recall f1-score support

high 0.37 0.40 0.38 319

low 0.25 0.28 0.27 291

medium 0.25 0.26 0.26 275

none 0.58 0.45 0.51 305

accuracy 0.35 1190

macro avg 0.36 0.35 0.35 1190

weighted avg 0.37 0.35 0.36 1190

**GOOG\_INTERACTION:**

0.361 Precision

0.364 Recall

0.362 F1

[[111 72 96 42]

[ 69 76 85 64]

[ 78 70 93 48]

[ 32 64 38 151]]

precision recall f1-score support

high 0.38 0.35 0.36 321

low 0.27 0.26 0.26 294

medium 0.30 0.32 0.31 289

none 0.50 0.53 0.51 285

accuracy 0.36 1189

macro avg 0.36 0.36 0.36 1189

weighted avg 0.36 0.36 0.36 1189

**GOOG\_INTERACTION\_RF:**

0.427 Precision

0.421 Recall

0.421 F1

[[163 71 80 7]

[ 99 72 76 47]

[102 59 98 30]

[ 36 44 36 169]]

precision recall f1-score support

high 0.41 0.51 0.45 321

low 0.29 0.24 0.27 294

medium 0.34 0.34 0.34 289

none 0.67 0.59 0.63 285

accuracy 0.42 1189

macro avg 0.43 0.42 0.42 1189

weighted avg 0.42 0.42 0.42 1189

**GOOGL\_INTERACTION:**

0.339 Precision

0.339 Recall

0.339 F1

[[103 81 79 54]

[ 80 92 61 60]

[ 72 60 75 64]

[ 49 67 53 134]]

precision recall f1-score support

high 0.34 0.32 0.33 317

low 0.31 0.31 0.31 293

medium 0.28 0.28 0.28 271

none 0.43 0.44 0.44 303

accuracy 0.34 1184

macro avg 0.34 0.34 0.34 1184

weighted avg 0.34 0.34 0.34 1184

**GOOGL\_INTERACTION:**

0.406 Precision

0.400 Recall

0.400 F1

[[156 68 65 28]

[ 88 89 68 48]

[106 48 81 36]

[ 49 55 46 153]]

precision recall f1-score support

high 0.39 0.49 0.44 317

low 0.34 0.30 0.32 293

medium 0.31 0.30 0.31 271

none 0.58 0.50 0.54 303

accuracy 0.40 1184

macro avg 0.41 0.40 0.40 1184

weighted avg 0.41 0.40 0.40 1184

**MSFT\_INTERACTION:**

0.365 Precision

0.354 Recall

0.358 F1

[[122 87 81 33]

[ 62 90 94 51]

[ 76 75 72 46]

[ 24 67 70 142]]

precision recall f1-score support

high 0.43 0.38 0.40 323

low 0.28 0.30 0.29 297

medium 0.23 0.27 0.25 269

none 0.52 0.47 0.49 303

accuracy 0.36 1192

macro avg 0.37 0.35 0.36 1192

weighted avg 0.37 0.36 0.36 1192

**MSFT\_INTERACTION\_RF:**

0.418 Precision

0.419 Recall

0.417 F1

[[178 46 87 12]

[ 79 92 74 52]

[ 98 73 56 42]

[ 28 45 46 184]]

precision recall f1-score support

high 0.46 0.55 0.50 323

low 0.36 0.31 0.33 297

medium 0.21 0.21 0.21 269

none 0.63 0.61 0.62 303

accuracy 0.43 1192

macro avg 0.42 0.42 0.42 1192

weighted avg 0.42 0.43 0.42 1192

**TSLA\_INTERACTION:**

0.295 Precision

0.294 Recall

0.294 F1

[[ 89 79 87 56]

[ 74 76 81 70]

[ 60 67 81 66]

[ 50 73 68 100]]

precision recall f1-score support

high 0.33 0.29 0.30 311

low 0.26 0.25 0.26 301

medium 0.26 0.30 0.27 274

none 0.34 0.34 0.34 291

accuracy 0.29 1177

macro avg 0.30 0.29 0.29 1177

weighted avg 0.30 0.29 0.29 1177

**TSLA\_INTERACTION\_RF:**

0.351 Precision

0.353 Recall

0.351 F1

[[140 52 64 55]

[ 63 87 64 87]

[ 60 71 70 73]

[ 49 61 59 122]]

precision recall f1-score support

high 0.45 0.45 0.45 311

low 0.32 0.29 0.30 301

medium 0.27 0.26 0.26 274

none 0.36 0.42 0.39 291

accuracy 0.36 1177

macro avg 0.35 0.35 0.35 1177

weighted avg 0.35 0.36 0.35 1177

**AAPL\_PRICE**

0.513 Precision

0.513 Recall

0.512 F1

[[164 156]

[135 142]]

precision recall f1-score support

decrease 0.55 0.51 0.53 320

increase 0.48 0.51 0.49 277

accuracy 0.51 597

macro avg 0.51 0.51 0.51 597

weighted avg 0.52 0.51 0.51 597

**AAPL\_PRICE\_RF:**

0.507 Precision

0.507 Recall

0.506 F1

[[156 164]

[131 146]]

precision recall f1-score support

decrease 0.54 0.49 0.51 320

increase 0.47 0.53 0.50 277

accuracy 0.51 597

macro avg 0.51 0.51 0.51 597

weighted avg 0.51 0.51 0.51 597

**AMZN\_PRICE**

0.486 Precision

0.486 Recall

0.485 F1

[[149 165]

[143 141]]

precision recall f1-score support

decrease 0.51 0.47 0.49 314

increase 0.46 0.50 0.48 284

accuracy 0.48 598

macro avg 0.49 0.49 0.48 598

weighted avg 0.49 0.48 0.49 598

**AMZN\_PRICE\_RF:**

0.463 Precision

0.462 Recall

0.462 F1

[[150 164]

[157 127]]

precision recall f1-score support

decrease 0.49 0.48 0.48 314

increase 0.44 0.45 0.44 284

accuracy 0.46 598

macro avg 0.46 0.46 0.46 598

weighted avg 0.46 0.46 0.46 598

**GOOG\_PRICE**

0.510 Precision

0.510 Recall

0.509 F1

[[162 159]

[132 140]]

precision recall f1-score support

decrease 0.55 0.50 0.53 321

increase 0.47 0.51 0.49 272

accuracy 0.51 593

macro avg 0.51 0.51 0.51 593

weighted avg 0.51 0.51 0.51 593

**GOOG\_PRICE\_RF:**

0.511 Precision

0.511 Recall

0.509 F1

[[158 163]

[128 144]]

precision recall f1-score support

decrease 0.55 0.49 0.52 321

increase 0.47 0.53 0.50 272

accuracy 0.51 593

macro avg 0.51 0.51 0.51 593

weighted avg 0.51 0.51 0.51 593

**GOOGL\_PRICE:**

0.463 Precision

0.463 Recall

0.462 F1

[[143 174]

[145 131]]

precision recall f1-score support

decrease 0.50 0.45 0.47 317

increase 0.43 0.47 0.45 276

accuracy 0.46 593

macro avg 0.46 0.46 0.46 593

weighted avg 0.47 0.46 0.46 593

**GOOGL\_PRICE\_RF:**

0.482 Precision

0.482 Recall

0.481 F1

[[146 171]

[137 139]]

precision recall f1-score support

decrease 0.52 0.46 0.49 317

increase 0.45 0.50 0.47 276

accuracy 0.48 593

macro avg 0.48 0.48 0.48 593

weighted avg 0.48 0.48 0.48 593

**MSFT\_PRICE:**

0.544 Precision

0.544 Recall

0.543 F1

[[165 146]

[127 160]]

precision recall f1-score support

decrease 0.57 0.53 0.55 311

increase 0.52 0.56 0.54 287

accuracy 0.54 598

macro avg 0.54 0.54 0.54 598

weighted avg 0.54 0.54 0.54 598

**MSFT\_PRICE\_RF:**

0.568 Precision

0.568 Recall

0.567 F1

[[168 143]

[116 171]]

precision recall f1-score support

decrease 0.59 0.54 0.56 311

increase 0.54 0.60 0.57 287

accuracy 0.57 598

macro avg 0.57 0.57 0.57 598

weighted avg 0.57 0.57 0.57 598

**TSLA\_PRICE:**

0.509 Precision

0.509 Recall

0.508 F1

[[154 158]

[132 145]]

precision recall f1-score support

decrease 0.54 0.49 0.52 312

increase 0.48 0.52 0.50 277

accuracy 0.51 589

macro avg 0.51 0.51 0.51 589

weighted avg 0.51 0.51 0.51 589

**TSLA\_PRICE\_RF:**

0.486 Precision

0.486 Recall

0.484 F1

[[140 172]

[132 145]]

precision recall f1-score support

decrease 0.51 0.45 0.48 312

increase 0.46 0.52 0.49 277

accuracy 0.48 589

macro avg 0.49 0.49 0.48 589

weighted avg 0.49 0.48 0.48 589

**AAPL\_SENTIMENT:**

0.551 Precision

0.553 Recall

0.551 F1

[[166 98 45]

[102 138 61]

[ 37 59 188]]

precision recall f1-score support

negative 0.54 0.54 0.54 309

neutral 0.47 0.46 0.46 301

positive 0.64 0.66 0.65 284

accuracy 0.55 894

macro avg 0.55 0.55 0.55 894

weighted avg 0.55 0.55 0.55 894

**AAPL\_SENTIMENT\_RF:**

0.682 Precision

0.656 Recall

0.663 F1

[[201 104 4]

[ 78 197 26]

[ 35 61 188]]

precision recall f1-score support

negative 0.64 0.65 0.65 309

neutral 0.54 0.65 0.59 301

positive 0.86 0.66 0.75 284

accuracy 0.66 894

macro avg 0.68 0.66 0.66 894

weighted avg 0.68 0.66 0.66 894

**AMZN\_SENTIMENT:**

0.570 Precision

0.571 Recall

0.570 F1

[[175 85 53]

[ 92 150 56]

[ 32 67 184]]

precision recall f1-score support

negative 0.59 0.56 0.57 313

neutral 0.50 0.50 0.50 298

positive 0.63 0.65 0.64 283

accuracy 0.57 894

macro avg 0.57 0.57 0.57 894

weighted avg 0.57 0.57 0.57 894

**AMZN\_SENTIMENT\_RF:**

0.657 Precision

0.636 Recall

0.642 F1

[[210 99 4]

[105 163 30]

[ 50 38 195]]

precision recall f1-score support

negative 0.58 0.67 0.62 313

neutral 0.54 0.55 0.55 298

positive 0.85 0.69 0.76 283

accuracy 0.64 894

macro avg 0.66 0.64 0.64 894

weighted avg 0.65 0.64 0.64 894

**GOOG\_SENTIMENT:**

0.637 Precision

0.636 Recall

0.636 F1

[[206 80 27]

[ 76 162 59]

[ 21 63 200]]

precision recall f1-score support

negative 0.68 0.66 0.67 313

neutral 0.53 0.55 0.54 297

positive 0.70 0.70 0.70 284

accuracy 0.64 894

macro avg 0.64 0.64 0.64 894

weighted avg 0.64 0.64 0.64 894

**GOOG\_SENTIMENT\_RF:**

0.704 Precision

0.701 Recall

0.699 F1

[[240 69 4]

[101 157 39]

[ 28 27 229]]

precision recall f1-score support

negative 0.65 0.77 0.70 313

neutral 0.62 0.53 0.57 297

positive 0.84 0.81 0.82 284

accuracy 0.70 894

macro avg 0.70 0.70 0.70 894

weighted avg 0.70 0.70 0.70 894

**GOOGL\_SENTIMENT:**

0.517 Precision

0.509 Recall

0.512 F1

[[102 72 31]

[ 66 87 32]

[ 33 51 107]]

precision recall f1-score support

negative 0.51 0.50 0.50 205

neutral 0.41 0.47 0.44 185

positive 0.63 0.56 0.59 191

accuracy 0.51 581

macro avg 0.52 0.51 0.51 581

weighted avg 0.52 0.51 0.51 581

**GOOGL\_SENTIMENT\_RF:**

0.644 Precision

0.591 Recall

0.598 F1

[[142 61 2]

[ 72 103 10]

[ 48 43 100]]

precision recall f1-score support

negative 0.54 0.69 0.61 205

neutral 0.50 0.56 0.53 185

positive 0.89 0.52 0.66 191

accuracy 0.59 581

macro avg 0.64 0.59 0.60 581

weighted avg 0.64 0.59 0.60 581

**MSFT\_SENTIMENT:**

0.629 Precision

0.618 Recall

0.621 F1

[[ 89 50 5]

[ 32 67 30]

[ 8 35 108]]

precision recall f1-score support

negative 0.69 0.62 0.65 144

neutral 0.44 0.52 0.48 129

positive 0.76 0.72 0.73 151

accuracy 0.62 424

macro avg 0.63 0.62 0.62 424

weighted avg 0.64 0.62 0.63 424

**MSFT\_SENTIMENT\_RF:**

0.703 Precision

0.705 Recall

0.704 F1

[[105 37 2]

[ 32 71 26]

[ 13 12 126]]

precision recall f1-score support

negative 0.70 0.73 0.71 144

neutral 0.59 0.55 0.57 129

positive 0.82 0.83 0.83 151

accuracy 0.71 424

macro avg 0.70 0.70 0.70 424

weighted avg 0.71 0.71 0.71 424

**TSLA\_SENTIMENT:**

0.459 Precision

0.459 Recall

0.458 F1

[[126 105 74]

[ 78 128 81]

[ 64 77 151]]

precision recall f1-score support

negative 0.47 0.41 0.44 305

neutral 0.41 0.45 0.43 287

positive 0.49 0.52 0.51 292

accuracy 0.46 884

macro avg 0.46 0.46 0.46 884

weighted avg 0.46 0.46 0.46 884

**TSLA\_SENTIMENT\_RF:**

0.623 Precision

0.586 Recall

0.592 F1

[[198 98 9]

[100 164 23]

[ 69 66 157]]

precision recall f1-score support

negative 0.54 0.65 0.59 305

neutral 0.50 0.57 0.53 287

positive 0.83 0.54 0.65 292

accuracy 0.59 884

macro avg 0.62 0.59 0.59 884

weighted avg 0.62 0.59 0.59 884