

# harsh6\_fin556\_algo\_trading\_symbols\_homework

Automated NASDAQ ETP Scanner — Output and Source Code | GitHub: <https://github.com/xecuterisaquant/fin556-etp-finder>

## Summary

Total matches: **601**

| Category                       | Count |
|--------------------------------|-------|
| leveraged_single_stock_long    | 204   |
| leveraged_index_long           | 134   |
| leveraged_index_inverse        | 99    |
| leveraged_single_stock_inverse | 65    |
| crypto_trust                   | 37    |
| commodity_physical_trust       | 31    |
| crypto_futures                 | 16    |
| commodity_futures              | 15    |

## Run metadata

```
source_url: https://www.nasdaqtrader.com/dynamic/SymDir/nasdaqtraded.txt
timestamp_chicago: 2025-11-08T10:42:22-06:00
records_count: 601
output_csv: outputs/2025-11-08/etp_candidates.csv
output_jsonl: outputs/2025-11-08/etp_candidates.jsonl
date_dir: 2025-11-08
```

## Detected Symbols (Full List)

| # | symbol | name                                   | etp_type | category                    | reasons   | timestamp                 |
|---|--------|--|----------|-----------------------------|---|---------------------------|
| 1 | AAAU   | Goldman Sachs Physical Gold ETF Shares | ETF      | commodity_physical_trust    | etf_flag_Y, type_etf, physical_keyword                        | 2025-11-08T10:42:22-06:00 |
| 2 | AALG   | Leverage Shares 2X Long AAL Daily ETF  | ETF      | leveraged_single_stock_long | etf_flag_Y, type_etf, leverage_context, single_stock_detected | 2025-11-08T10:42:22-06:00 |
| 3 | AAPB   | GraniteShares 2x Long AAPL Daily ETF   | ETF      | leveraged_single_stock_long | etf_flag_Y, type_etf, leverage_context, single_stock_detected | 2025-11-08T10:42:22-06:00 |

| #  | symbol | name  | etp_type | category                       | reasons  | timestamp                  |
|----|--------|---|----------|--------------------------------|--|----------------------------|
| 4  | AAPD   | Direxion Daily AAPL Bear 1X Shares                                      | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected | 2025-11-08T1 0:42:22-06:00 |
| 5  | AAPU   | Direxion Daily AAPL Bull 2X Shares                                      | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 6  | AAPX   | ETF Opportunities Trust T-Rex 2X Long Apple Daily Target ETF            | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 7  | ADBQ   | Leverage Shares 2X Long ADBE Daily ETF                                  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 8  | AETH   | Bitwise Trendwise Ether and Treasuries Rotation Strategy ETF            | ETF      | crypto_futures                 | etf_flag_Y, type_etf, futures_keyword  | 2025-11-08T1 0:42:22-06:00 |
| 9  | AFRU   | ETF Opportunities Trust T-REX 2X Long AFRM Daily Target ETF             | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 10 | AGQ    | ProShares Ultra Silver  | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x  | 2025-11-08T1 0:42:22-06:00 |
| 11 | AIBD   | Direxion Shares ETF Trust Direxion Daily AI and Big Data Bear 2X Shares | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected | 2025-11-08T1 0:42:22-06:00 |
| 12 | AIBU   | Direxion Shares ETF Trust Direxion Daily AI and Big Data Bull 2X Shares | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 13 | AMDD   | Direxion Daily AMD Bear 1X Shares                                       | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected | 2025-11-08T1 0:42:22-06:00 |
| 14 | AMDG   | Leverage Shares 2X Long AMD Daily ETF                                   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 15 | AMDL   | GraniteShares 2x Long AMD Daily ETF                                     | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 16 | AMUU   | Direxion Daily AMD Bull 2X Shares                                       | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 17 | AMZD   | Direxion Daily AMZN Bear 1X Shares                                      | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected | 2025-11-08T1 0:42:22-06:00 |
| 18 | AMZU   | Direxion Daily AMZN Bull 2X Shares                                      | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 19 | AMZZ   | GraniteShares 2x Long AMZN Daily ETF                                    | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 20 | ANEL   | Defiance Daily Target 2x Long ANET ETF                                  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 21 | APLX   | Tradr 2X Long APLD Daily ETF  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 22 | APPX   | Tradr 2X Long APP Daily ETF   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 23 | ARCX   | Tradr 2X Long ACHR Daily ETF  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 24 | ARMG   | Leverage Shares 2X Long ARM Daily ETF                                   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 25 | ARMU   | ETF Opportunities Trust T-REX 2X Long ARM Daily Target ETF              | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 26 | ASMG   | Leverage Shares 2X Long ASML Daily ETF                                  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 27 | ASTX   | Tradr 2X Long ASTS Daily ETF  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |

| #  | symbol | name  | etp_type | category                       | reasons   | timestamp                  |
|----|--------|---|----------|--------------------------------|---|----------------------------|
| 28 | AURU   | Investment Managers Series Trust II Tradr 2X Long AUR Daily ETF                             | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 29 | AVGG   | Leverage Shares 2X Long AVGO Daily ETF  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 30 | AVGU   | GraniteShares 2x Long AVGO Daily ETF  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 31 | AVGX   | Defiance Daily Target 2X Long AVGO ETF  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 32 | AVL    | Direxion Daily AVGO Bull 2X Shares  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 33 | AVS    | Direxion Daily AVGO Bear 1X Shares  | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected          | 2025-11-08T1 0:42:22-06:00 |
| 34 | AVXX   | Defiance Daily Target 2x Long AVAV ETF  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 35 | AXUP   | ETF Opportunities Trust T-REX 2X Long AXON Daily Target ETF                                 | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 36 | BABX   | GraniteShares 2x Long BABA Daily ETF  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 37 | BAGY   | Amplify ETF Trust Amplify Bitcoin Max Income Covered Call ETF                               | Trust    | crypto_trust                   | etf_flag_Y, type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |
| 38 | BAIG   | Leverage Shares 2X Long BBAI Daily ETF  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 39 | BAR    | GraniteShares Gold Trust Shares of Beneficial Interest                                      | Trust    | commodity_physical_trust       | type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |
| 40 | BBB    | CYBER HORNET S&P; 500 and Bitcoin 75/25 Strategy ETF  | ETF      | crypto_futures                 | etf_flag_Y, type_etf, futures_keyword   | 2025-11-08T1 0:42:22-06:00 |
| 41 | BCOR   | Grayscale Funds Trust Grayscale Bitcoin Adopters ETF  | Trust    | crypto_trust                   | etf_flag_Y, type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |
| 42 | BDCX   | ETRACS Quarterly Pay 1.5x Leveraged MarketVector BDC Liquid Index ETN due June 10, 2050     | ETN      | leveraged_index_long           | etf_flag_Y, type_etn_by_name, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 43 | BEGS   | Collaborative Investment Series Trust Rareview 2x Bull Cryptocurrency & Precious Metals ETF | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 44 | BERZ   | MicroSectors FANG & Innovation -3x Inverse Leveraged ETN                                    | ETN      | leveraged_index_inverse        | etf_flag_Y, type_etn_by_name, leverage_context, inverse_context                         | 2025-11-08T1 0:42:22-06:00 |
| 45 | BFAP   | First Trust Exchange-Traded Fund FT Vest Bitcoin Strategy Floor15 ETF April                 | Trust    | crypto_futures                 | etf_flag_Y, type_trust_with_commodity, futures_keyword                                  | 2025-11-08T1 0:42:22-06:00 |
| 46 | BFJL   | First Trust Exchange-Traded Fund FT Vest Bitcoin Strategy Floor15 ETF July                  | Trust    | crypto_futures                 | etf_flag_Y, type_trust_with_commodity, futures_keyword                                  | 2025-11-08T1 0:42:22-06:00 |
| 47 | BFOC   | First Trust Exchange-Traded Fund FT Vest Bitcoin Strategy Floor15 ETF - October             | Trust    | crypto_futures                 | etf_flag_Y, type_trust_with_commodity, futures_keyword                                  | 2025-11-08T1 0:42:22-06:00 |
| 48 | BGLD   | FT Vest Gold Strategy Quarterly Buffer ETF  | ETF      | commodity_futures              | etf_flag_Y, type_etf, futures_keyword   | 2025-11-08T1 0:42:22-06:00 |
| 49 | BIB    | ProShares Ultra Nasdaq Biotechnology  | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x           | 2025-11-08T1 0:42:22-06:00 |
| 50 | BIS    | ProShares UltraShort Nasdaq Biotechnology   | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, brand_proshares_ultrashort_implies_minus2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |
| 51 | BITC   | Bitwise Trendwise Bitcoin and Treasuries Rotation Strategy ETF                              | ETF      | crypto_futures                 | etf_flag_Y, type_etf, futures_keyword   | 2025-11-08T1 0:42:22-06:00 |

| #  | symbol | name   | etp_type | category                       | reasons  | timestamp                  |
|----|--------|--|----------|--------------------------------|--|----------------------------|
| 52 | BITI   | ProShares Short Bitcoin ETF  | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, inverse_context  | 2025-11-08T1 0:42:22-06:00 |
| 53 | BITS   | Global X Blockchain & Bitcoin Strategy ETF   | ETF      | crypto_futures                 | etf_flag_Y, type_etf, futures_keyword  | 2025-11-08T1 0:42:22-06:00 |
| 54 | BITU   | ProShares Trust ProShares Ultra Bitcoin ETF  | Trust    | leveraged_index_long           | etf_flag_Y, type_trust_with_commodity, brand_proshares_ultra_implies_2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |
| 55 | BITX   | Volatility Shares Trust 2x Bitcoin Strategy ETF  | Trust    | leveraged_index_long           | etf_flag_Y, type_trust_with_commodity, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 56 | BKNU   | ETF Opportunities Trust T-REX 2X Long BKNG Daily Target ETF                                  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                                  | 2025-11-08T1 0:42:22-06:00 |
| 57 | BLSG   | Leverage Shares 2X Long BLSH Daily ETF   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                                  | 2025-11-08T1 0:42:22-06:00 |
| 58 | BLSX   | Investment Managers Series Trust II Tradr 2X Long BLSH Daily ETF                             | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                                  | 2025-11-08T1 0:42:22-06:00 |
| 59 | BMNG   | Leverage Shares 2X Long BMNR Daily ETF   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                                  | 2025-11-08T1 0:42:22-06:00 |
| 60 | BMNU   | ETF Opportunities Trust T-REX 2X Long BMNR Daily Target ETF                                  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                                  | 2025-11-08T1 0:42:22-06:00 |
| 61 | BNKD   | Bank Of Montreal MicroSectors U.S. Big Banks -3 Inverse Leveraged ETNs due February 17, 2045 | ETN      | leveraged_index_inverse        | etf_flag_Y, type_etn_by_name, inverse_context  | 2025-11-08T1 0:42:22-06:00 |
| 62 | BOED   | Direxion Daily BA Bear 1X Shares   | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected                 | 2025-11-08T1 0:42:22-06:00 |
| 63 | BOEG   | Leverage Shares 2X Long BA Daily ETF   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                                  | 2025-11-08T1 0:42:22-06:00 |
| 64 | BOEU   | Direxion Daily BA Bull 2X Shares   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                                  | 2025-11-08T1 0:42:22-06:00 |
| 65 | BOIL   | ProShares Ultra Bloomberg Natural Gas  | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x                  | 2025-11-08T1 0:42:22-06:00 |
| 66 | BPI    | Grayscale Funds Trust Grayscale Bitcoin Premium Income ETF                                   | Trust    | crypto_trust                   | etf_flag_Y, type_trust_with_commodity  | 2025-11-08T1 0:42:22-06:00 |
| 67 | BRKD   | Direxion Daily BRKB Bear 1X Shares   | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected                 | 2025-11-08T1 0:42:22-06:00 |
| 68 | BRKU   | Direxion Daily BRKB Bull 2X Shares   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                                  | 2025-11-08T1 0:42:22-06:00 |
| 69 | BRZU   | Direxion Daily Brazil Bull 2X Shares   | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context   | 2025-11-08T1 0:42:22-06:00 |
| 70 | BTC    | Grayscale Bitcoin Mini Trust (BTC) Common units of fractional undivided beneficial interest  | Trust    | crypto_trust                   | etf_flag_Y, type_trust_with_commodity  | 2025-11-08T1 0:42:22-06:00 |
| 71 | BTCC   | Grayscale Funds Trust Grayscale Bitcoin Covered Call ETF                                     | Trust    | crypto_trust                   | etf_flag_Y, type_trust_with_commodity  | 2025-11-08T1 0:42:22-06:00 |
| 72 | BTCI   | NEOS ETF Trust NEOS Bitcoin High Income ETF  | Trust    | crypto_trust                   | etf_flag_Y, type_trust_with_commodity  | 2025-11-08T1 0:42:22-06:00 |
| 73 | BTCL   | T-Rex 2X Long Bitcoin Daily Target ETF   | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context   | 2025-11-08T1 0:42:22-06:00 |
| 74 | BTCZ   | T-Rex 2X Inverse Bitcoin Daily Target ETF  | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, leverage_context, inverse_context  | 2025-11-08T1 0:42:22-06:00 |
| 75 | BTOP   | Bitwise Trendwise BTC/ETH and Treasuries Rotation Strategy ETF                               | ETF      | crypto_futures                 | etf_flag_Y, type_etf, futures_keyword  | 2025-11-08T1 0:42:22-06:00 |

| #  | symbol | name  | etp_type | category                    | reasons   | timestamp                  |
|----|--------|---|----------|-----------------------------|---|----------------------------|
| 76 | BTRN   | Global X Funds Global X Bitcoin Trend Strategy ETF                                  | ETF      | crypto_futures              | etf_flag_Y, type_etf, futures_keyword   | 2025-11-08T1 0:42:22-06:00 |
| 77 | BULG   | Leverage Shares 2X Long BULL Daily ETF  | ETF      | leveraged_single_stock_long | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 78 | BULU   | ETF Opportunities Trust T-REX 2X Long BULL Daily Target ETF                         | ETF      | leveraged_single_stock_long | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 79 | BULX   | GraniteShares 2x Long BULL Daily ETF  | ETF      | leveraged_single_stock_long | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 80 | BULZ   | MicroSectors FANG & Innovation 3x Leveraged ETN                                     | ETN      | leveraged_index_long        | etf_flag_Y, type_etn_by_name, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 81 | BZQ    | ProShares UltraShort MSCI Brazil Capped   | ETF      | leveraged_index_inverse     | etf_flag_Y, type_etf, brand_proshares_ultrashort_implies_minus2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |
| 82 | CARD   | Bank Of Montreal MAX Auto Industry -3x Inverse Leveraged ETN                        | ETN      | leveraged_index_inverse     | etf_flag_Y, type_etn_by_name, leverage_context, inverse_context                         | 2025-11-08T1 0:42:22-06:00 |
| 83 | CARU   | Bank Of Montreal MAX Auto Industry 3x Leveraged ETN                                 | ETN      | leveraged_index_long        | etf_flag_Y, type_etn_by_name, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 84 | CBOA   | Calamos ETF Trust Calamos Bitcoin Structured Alt Protection ETF - April             | Trust    | crypto_trust                | etf_flag_Y, type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |
| 85 | CBOJ   | Calamos ETF Trust Calamos Bitcoin Structured Alt Protection ETF - January           | Trust    | crypto_trust                | etf_flag_Y, type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |
| 86 | CBOL   | Calamos ETF Trust Calamos Laddered Bitcoin Structured Alt Protection ETF            | Trust    | crypto_trust                | etf_flag_Y, type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |
| 87 | CBOO   | Calamos ETF Trust Calamos Bitcoin Structured Alt Protection ETF - October           | Trust    | crypto_trust                | etf_flag_Y, type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |
| 88 | CBOY   | Calamos ETF Trust Calamos Bitcoin Structured Alt Protection ETF - July              | Trust    | crypto_trust                | etf_flag_Y, type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |
| 89 | CBTA   | Calamos ETF Trust Calamos Bitcoin 80 Series Structured Alt Protection ETF - April   | Trust    | crypto_trust                | etf_flag_Y, type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |
| 90 | CBTJ   | Calamos ETF Trust Calamos Bitcoin 80 Series Structured Alt Protection ETF - January | Trust    | crypto_trust                | etf_flag_Y, type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |
| 91 | CBTL   | Calamos ETF Trust Calamos Laddered Bitcoin 80 Series Structured Alt Protection ETF  | Trust    | crypto_trust                | etf_flag_Y, type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |
| 92 | CBTO   | Calamos ETF Trust Calamos Bitcoin 80 Series Structured Alt Protection ETF - October | Trust    | crypto_trust                | etf_flag_Y, type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |
| 93 | CBTY   | Calamos ETF Trust Calamos Bitcoin 80 Series Structured Alt Protection ETF - July    | Trust    | crypto_trust                | etf_flag_Y, type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |
| 94 | CBXA   | Calamos ETF Trust Calamos Bitcoin 90 Series Structured Alt Protection ETF - April   | Trust    | crypto_trust                | etf_flag_Y, type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |
| 95 | CBXJ   | Calamos ETF Trust Calamos Bitcoin 90 Series Structured Alt Protection ETF - January | Trust    | crypto_trust                | etf_flag_Y, type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |
| 96 | CBXL   | Calamos ETF Trust Calamos Laddered Bitcoin 90 Series Structured Alt Protection ETF  | Trust    | crypto_trust                | etf_flag_Y, type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |
| 97 | CBXO   | Calamos ETF Trust Calamos Bitcoin 90 Series Structured Alt Protection ETF - October | Trust    | crypto_trust                | etf_flag_Y, type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |
| 98 | CBXY   | Calamos ETF Trust Calamos Bitcoin 90 Series Structured Alt Protection ETF - July    | Trust    | crypto_trust                | etf_flag_Y, type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |
| 99 | CCUP   | ETF Opportunities Trust T-REX 2X Long CRCL Daily Target ETF                         | ETF      | leveraged_single_stock_long | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |

| #   | symbol | name  | etp_type | category                       | reasons  | timestamp                  |
|-----|--------|---|----------|--------------------------------|--|----------------------------|
| 100 | CEF    | Sprott Physical Gold and Silver Trust Units                             | Trust    | commodity_physical_trust       | etf_flag_Y, type_trust_with_commodity, physical_keyword                        | 2025-11-08T1 0:42:22-06:00 |
| 101 | CEFD   | ETRACS Monthly Pay 1.5X Leveraged Closed-End Fund Index ETN             | ETN      | leveraged_index_long           | etf_flag_Y, type_etn_by_name, leverage_context                                 | 2025-11-08T1 0:42:22-06:00 |
| 102 | CEGX   | Trad'r 2X Long CEG Daily ETF  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 103 | CELT   | Investment Managers Series Trust II Trad'r 2X Long CELH Daily ETF       | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 104 | CHAU   | Direxion Daily CSI 300 China A Share Bull 2X Shares                     | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 105 | CLIX   | ProShares Long Online/Short Stores ETF                                  | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, inverse_context  | 2025-11-08T1 0:42:22-06:00 |
| 106 | CLSE   | Trust for Professional Managers Convergence Long/Short Equity ETF       | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, inverse_context  | 2025-11-08T1 0:42:22-06:00 |
| 107 | CLSX   | Investment Managers Series Trust II Trad'r 2X Long CLSK Daily ETF       | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 108 | COIA   | ProShares Trust ProShares Ultra COIN                                    | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x  | 2025-11-08T1 0:42:22-06:00 |
| 109 | COIG   | Leverage Shares 2X Long COIN Daily ETF                                  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 110 | COIO   | Themes ETF Trust Leverage Shares 2x Capped Accelerated COIN Monthly ETF | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context   | 2025-11-08T1 0:42:22-06:00 |
| 111 | CONI   | GraniteShares 2x Short COIN Daily ETF                                   | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected | 2025-11-08T1 0:42:22-06:00 |
| 112 | CONL   | GraniteShares 2x Long COIN Daily ETF                                    | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 113 | COPA   | Themes ETF Trust Themes Copper Miners ETF                               | Trust    | commodity_physical_trust       | etf_flag_Y, type_trust_with_commodity  | 2025-11-08T1 0:42:22-06:00 |
| 114 | CORD   | ETF Opportunities Trust T-REX 2X Inverse CRWV Daily Target ETF          | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, leverage_context, inverse_context                        | 2025-11-08T1 0:42:22-06:00 |
| 115 | CORX   | Volatility Shares Trust 2x Corn ETF                                     | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context   | 2025-11-08T1 0:42:22-06:00 |
| 116 | COTG   | Leverage Shares 2X Long COST Daily ETF                                  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 117 | COZX   | Investment Managers Series Trust II Trad'r 2X Long CORZ Daily ETF       | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 118 | CPXR   | Tidal Trust III USCF Daily Target 2X Copper Index ETF                   | Trust    | leveraged_index_long           | etf_flag_Y, type_trust_with_commodity, leverage_context                        | 2025-11-08T1 0:42:22-06:00 |
| 119 | CPZ    | Calamos Long/Short Equity & Dynamic Income Trust - Closed End Fund      | ETF      | leveraged_index_inverse        | inverse_context  | 2025-11-08T1 0:42:22-06:00 |
| 120 | CRCA   | ProShares Trust ProShares Ultra CRCL                                    | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x  | 2025-11-08T1 0:42:22-06:00 |
| 121 | CRCD   | ETF Opportunities Trust T-REX 2X Inverse CRCL Daily Target ETF          | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, leverage_context, inverse_context                        | 2025-11-08T1 0:42:22-06:00 |
| 122 | CRCG   | Leverage Shares 2X Long CRCL Daily ETF                                  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 123 | CRDU   | Investment Managers Series Trust II Trad'r 2X Long CRDO Daily ETF       | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |

| #   | symbol | name  | etp_type | category                       | reasons  | timestamp                  |
|-----|--------|---|----------|--------------------------------|--|----------------------------|
| 124 | CRMG   | Leverage Shares 2X Long CRM Daily ETF   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 125 | CRSH   | Tidal Trust II YieldMax Short TSLA Option Income Strategy ETF                 | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, inverse_context, single_stock_detected                   | 2025-11-08T1 0:42:22-06:00 |
| 126 | CRWG   | Leverage Shares 2X Long CRWV Daily ETF  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 127 | CRWL   | GraniteShares 2x Long CRWD Daily ETF  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 128 | CRWU   | ETF Opportunities Trust T-REX 2X Long CRWV Daily Target ETF                   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 129 | CSCL   | Direxion Daily CSCO Bull 2X ETF   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 130 | CSCS   | Direxion Daily CSCO Bear 1X ETF   | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected | 2025-11-08T1 0:42:22-06:00 |
| 131 | CURE   | Direxion Daily Healthcare Bull 3X Shares                                      | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context   | 2025-11-08T1 0:42:22-06:00 |
| 132 | CVNX   | Defiance Daily Target 2X Long CVNA ETF  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 133 | CVSB   | Morgan Stanley ETF Trust Calvert Ultra-Short Investment Grade ETF             | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, inverse_context  | 2025-11-08T1 0:42:22-06:00 |
| 134 | CWEB   | Direxion Daily CSI China Internet Index Bull 2X Shares                        | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 135 | CWVX   | Trad'r 2X Long CRWV Daily ETF   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 136 | CXRN   | Listed Funds Trust Teucrium 2x Daily Corn ETF                                 | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context   | 2025-11-08T1 0:42:22-06:00 |
| 137 | DASX   | Investment Managers Series Trust II Trad'r 2X Long DASH Daily ETF             | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 138 | DDM    | ProShares Ultra Dow30   | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x  | 2025-11-08T1 0:42:22-06:00 |
| 139 | DEFI   | Tidal Commodities Trust I Hashdex Bitcoin ETF                                 | Trust    | crypto_trust                   | etf_flag_Y, type_trust_with_commodity  | 2025-11-08T1 0:42:22-06:00 |
| 140 | DFEN   | Direxion Daily Aerospace & Defense Bull 3X Shares                             | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context   | 2025-11-08T1 0:42:22-06:00 |
| 141 | DFII   | First Trust Exchange-Traded Fund FT Vest Bitcoin Strategy & Target Income ETF | Trust    | crypto_futures                 | etf_flag_Y, type_trust_with_commodity, futures_keyword                         | 2025-11-08T1 0:42:22-06:00 |
| 142 | DGZ    | DB Gold Short ETN due February 15, 2038                                       | ETN      | leveraged_single_stock_inverse | type_etn_by_name, inverse_context, single_stock_detected                       | 2025-11-08T1 0:42:22-06:00 |
| 143 | DIG    | ProShares Ultra Energy  | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x  | 2025-11-08T1 0:42:22-06:00 |
| 144 | DIPS   | Tidal Trust II YieldMax Short NVDA Option Income Strategy ETF                 | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, inverse_context, single_stock_detected                   | 2025-11-08T1 0:42:22-06:00 |
| 145 | DJTU   | ETF Opportunities Trust T-REX 2X Long DJT Daily Target ETF                    | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 146 | DKNX   | Defiance Daily Target 2X Long DKNG ETF  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 147 | DKUP   | ETF Opportunities Trust T-REX 2X Long DKNG Daily Target ETF                   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |

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| 148 | DLLL   | GraniteShares 2x Long DELL Daily ETF   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 149 | DOG    | ProShares Short Dow30  | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, inverse_context   | 2025-11-08T1 0:42:22-06:00 |
| 150 | DOGD   | Tradr 2X Long DDOG Daily ETF   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 151 | DPST   | Direxion Daily Regional Banks Bull 3X Shares                                       | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 152 | DRIP   | Direxion Daily S&P; Oil & Gas Exp. & Prod. Bear 2X Shares                          | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, leverage_context, inverse_context                                 | 2025-11-08T1 0:42:22-06:00 |
| 153 | DRN    | Direxion Daily Real Estate Bull 3X Shares  | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 154 | DRV    | Direxion Daily Real Estate Bear 3X Shares  | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, leverage_context, inverse_context                                 | 2025-11-08T1 0:42:22-06:00 |
| 155 | DUG    | ProShares UltraShort Energy  | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, brand_proshares_ultrashort_implies_minus2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |
| 156 | DULL   | Bank Of Montreal MicroSectors Gold -3X Inverse Leveraged ETNs due January 29, 2043 | ETN      | leveraged_index_inverse        | etf_flag_Y, type_etn_by_name, leverage_context, inverse_context                         | 2025-11-08T1 0:42:22-06:00 |
| 157 | DUSL   | Direxion Daily Industrials Bull 3X Shares  | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 158 | DUST   | Direxion Daily Gold Miners Index Bear 2X Shares                                    | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected          | 2025-11-08T1 0:42:22-06:00 |
| 159 | DWSH   | AdvisorShares Dorsey Wright Short ETF  | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, inverse_context, single_stock_detected                            | 2025-11-08T1 0:42:22-06:00 |
| 160 | DXD    | ProShares UltraShort Dow30   | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, brand_proshares_ultrashort_implies_minus2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |
| 161 | DZZ    | DB Gold Double Short ETN due February 15, 2038                                     | ETN      | leveraged_single_stock_inverse | type_etn_by_name, inverse_context, single_stock_detected                                | 2025-11-08T1 0:42:22-06:00 |
| 162 | EDC    | Direxion Emerging Markets Bull 3X Shares   | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 163 | EDZ    | Direxion Emerging Markets Bear 3X Shares   | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, leverage_context, inverse_context                                 | 2025-11-08T1 0:42:22-06:00 |
| 164 | EET    | ProShares Ultra MSCI Emerging Markets  | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x           | 2025-11-08T1 0:42:22-06:00 |
| 165 | EEV    | ProShares UltraShort MSCI Emerging Markets   | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, brand_proshares_ultrashort_implies_minus2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |
| 166 | EFO    | ProShares Ultra MSCI EAFE  | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x           | 2025-11-08T1 0:42:22-06:00 |
| 167 | EFU    | ProShares UltraShort MSCI EAFE   | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, brand_proshares_ultrashort_implies_minus2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |
| 168 | EFZ    | ProShares Short MSCI EAFE  | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, inverse_context, single_stock_detected                            | 2025-11-08T1 0:42:22-06:00 |
| 169 | EHLS   | Even Herd Long Short ETF   | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, inverse_context, single_stock_detected                            | 2025-11-08T1 0:42:22-06:00 |
| 170 | EHY    | Amplify ETF Trust Amplify Ethereum Max Income Covered Call ETF                     | Trust    | crypto_trust                   | etf_flag_Y, type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |
| 171 | ELIL   | Direxion Daily LLY Bull 2X Shares  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |

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|-----|--------|--|----------|--------------------------------|--|----------------------------|
| 172 | ELIS   | Direxion Daily LLY Bear 1X Shares  | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 173 | ENPX   | Investment Managers Series Trust II Tradr 2X Long ENPH Daily ETF                             | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected  | 2025-11-08T1 0:42:22-06:00 |
| 174 | EPV    | ProShares UltraShort FTSE Europe ETF   | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, brand_proshares_ultrashort_implies_minus2x, implied_multiplier_2x                  | 2025-11-08T1 0:42:22-06:00 |
| 175 | ERX    | Direxion Energy Bull 2X Shares   | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context   | 2025-11-08T1 0:42:22-06:00 |
| 176 | ERY    | Direxion Daily Energy Bear 2X Shares   | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, leverage_context, inverse_context  | 2025-11-08T1 0:42:22-06:00 |
| 177 | ETCO   | Grayscale Funds Trust Grayscale Ethereum Covered Call ETF                                    | Trust    | crypto_trust                   | etf_flag_Y, type_trust_with_commodity  | 2025-11-08T1 0:42:22-06:00 |
| 178 | ETH    | Grayscale Ethereum Mini Trust (ETH) Common units of fractional undivided beneficial interest | Trust    | crypto_trust                   | etf_flag_Y, type_trust_with_commodity  | 2025-11-08T1 0:42:22-06:00 |
| 179 | ETHA   | iShares Ethereum Trust ETF   | Trust    | crypto_trust                   | etf_flag_Y, type_trust_with_commodity  | 2025-11-08T1 0:42:22-06:00 |
| 180 | ETHD   | ProShares Trust ProShares UltraShort Ether ETF   | Trust    | leveraged_index_inverse        | etf_flag_Y, type_trust_with_commodity, brand_proshares_ultrashort_implies_minus2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |
| 181 | ETHE   | Grayscale Ethereum Trust (ETH) Common units of fractional undivided beneficial interest      | Trust    | crypto_trust                   | etf_flag_Y, type_trust_with_commodity  | 2025-11-08T1 0:42:22-06:00 |
| 182 | ETHT   | ProShares Trust ProShares Ultra Ether ETF  | Trust    | leveraged_index_long           | etf_flag_Y, type_trust_with_commodity, brand_proshares_ultra_implies_2x, implied_multiplier_2x           | 2025-11-08T1 0:42:22-06:00 |
| 183 | ETHU   | Volatility Shares Trust 2x Ether ETF   | Trust    | leveraged_index_long           | etf_flag_Y, type_trust_with_commodity, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 184 | ETQ    | T-Rex 2X Inverse Ether Daily Target ETF  | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, leverage_context, inverse_context  | 2025-11-08T1 0:42:22-06:00 |
| 185 | ETRL   | GraniteShares 2x Long ETOR Daily ETF   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected  | 2025-11-08T1 0:42:22-06:00 |
| 186 | ETTY   | Amplify ETF Trust Amplify Ethereum 3% Monthly Option Income ETF                              | Trust    | crypto_trust                   | etf_flag_Y, type_trust_with_commodity  | 2025-11-08T1 0:42:22-06:00 |
| 187 | ETU    | T-Rex 2X Long Ether Daily Target ETF   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected  | 2025-11-08T1 0:42:22-06:00 |
| 188 | EUM    | ProShares Short MSCI Emerging Markets  | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, inverse_context, single_stock_detected   | 2025-11-08T1 0:42:22-06:00 |
| 189 | EUO    | ProShares UltraShort Euro  | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, brand_proshares_ultrashort_implies_minus2x, implied_multiplier_2x                  | 2025-11-08T1 0:42:22-06:00 |
| 190 | EURL   | Direxion Daily FTSE Europe Bull 3x Shares  | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context   | 2025-11-08T1 0:42:22-06:00 |
| 191 | EWV    | ProShares UltraShort MSCI Japan  | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, brand_proshares_ultrashort_implies_minus2x, implied_multiplier_2x                  | 2025-11-08T1 0:42:22-06:00 |
| 192 | EZBC   | Franklin Templeton Digital Holdings Trust Shares of Franklin Bitcoin ETF                     | Trust    | crypto_trust                   | etf_flag_Y, type_trust_with_commodity  | 2025-11-08T1 0:42:22-06:00 |
| 193 | EZJ    | ProShares Ultra MSCI Japan   | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x                            | 2025-11-08T1 0:42:22-06:00 |
| 194 | FAS    | Direxion Financial Bull 3X Shares  | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context   | 2025-11-08T1 0:42:22-06:00 |

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| 195 | FAZ    | Direxion Financial Bear 3X Shares  | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, leverage_context, inverse_context                                 | 2025-11-08T1 0:42:22-06:00 |
| 196 | FBL    | GraniteShares 2x Long META Daily ETF   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 197 | FCG    | First Trust Natural Gas ETF  | Trust    | commodity_physical_trust       | etf_flag_Y, type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |
| 198 | FFLS   | Northern Lights Fund Trust II The Future Fund Long/Short ETF                           | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, inverse_context, single_stock_detected                            | 2025-11-08T1 0:42:22-06:00 |
| 199 | FGDL   | Franklin Templeton Holdings Trust Franklin Responsibly Sourced Gold ETF                | Trust    | commodity_physical_trust       | etf_flag_Y, type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |
| 200 | FIAT   | Tidal Trust II YieldMax Short COIN Option Income Strategy ETF                          | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, inverse_context, single_stock_detected                            | 2025-11-08T1 0:42:22-06:00 |
| 201 | FIGG   | Leverage Shares 2x Long FIG Daily ETF  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 202 | FLYD   | Bank of Montreal MicroSectors Travel -3x Inverse Leveraged ETN                         | ETN      | leveraged_index_inverse        | etf_flag_Y, type_etn_by_name, leverage_context, inverse_context                         | 2025-11-08T1 0:42:22-06:00 |
| 203 | FLYT   | Investment Managers Series Trust II Tradr 2X Long FLY Daily ETF                        | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 204 | FLYU   | Bank of Montreal MicroSectors Travel 3x Leveraged ETN                                  | ETN      | leveraged_index_long           | etf_flag_Y, type_etn_by_name, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 205 | FNGD   | MicroSectors FANG Index -3X Inverse Leveraged ETNs due January 8, 2038                 | ETN      | leveraged_index_inverse        | type_etn_by_name, leverage_context, inverse_context                                     | 2025-11-08T1 0:42:22-06:00 |
| 206 | FNGG   | Direxion Daily NYSE FANG+ Bull 2X Shares   | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 207 | FNGO   | MicroSectors FANG Index 2X Leveraged ETNs due January 8, 2038                          | ETN      | leveraged_index_long           | type_etn_by_name, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 208 | FNGU   | Bank Of Montreal MicroSectors FANG+ 3X Leveraged ETNs                                  | ETN      | leveraged_index_long           | etf_flag_Y, type_etn_by_name, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 209 | FRDD   | Direxion Daily F Bear 1X ETF   | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected          | 2025-11-08T1 0:42:22-06:00 |
| 210 | FRDU   | Direxion Daily F Bull 2X ETF   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 211 | FTLS   | First Trust Long/Short Equity  | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, inverse_context   | 2025-11-08T1 0:42:22-06:00 |
| 212 | FTXN   | First Trust Nasdaq Oil & Gas ETF   | Trust    | commodity_physical_trust       | etf_flag_Y, type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |
| 213 | FUTG   | Leverage Shares 2x Long FUTU Daily ETF   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 214 | FXP    | ProShares Ultrashort FTSE China 50   | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, brand_proshares_ultrashort_implies_minus2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |
| 215 | GBTC   | Grayscale Bitcoin Trust (BTC) Common Units of fractional undivided beneficial interest | Trust    | crypto_trust                   | etf_flag_Y, type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |
| 216 | GDE    | WisdomTree Trust WisdomTree Efficient Gold Plus Equity Strategy Fund                   | Trust    | commodity_futures              | etf_flag_Y, type_trust_with_commodity, futures_keyword                                  | 2025-11-08T1 0:42:22-06:00 |
| 217 | GDMN   | WisdomTree Trust WisdomTree Efficient Gold Plus Gold Miners Strategy Fund              | Trust    | commodity_futures              | etf_flag_Y, type_trust_with_commodity, futures_keyword                                  | 2025-11-08T1 0:42:22-06:00 |
| 218 | GDXD   | MicroSectors Gold Miners -3X Inverse Leveraged ETNs                                    | ETN      | leveraged_index_inverse        | etf_flag_Y, type_etn_by_name, leverage_context, inverse_context                         | 2025-11-08T1 0:42:22-06:00 |

| #   | symbol | name   | etp_type | category                       | reasons   | timestamp                  |
|-----|--------|--|----------|--------------------------------|---|----------------------------|
| 219 | GDXU   | MicroSectors Gold Miners 3X Leveraged ETN  | ETN      | leveraged_index_long           | etf_flag_Y, type_etn_by_name, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 220 | GDXY   | Tidal Trust II YieldMax Gold Miners Option Income Strategy ETF   | Trust    | commodity_futures              | etf_flag_Y, type_trust_with_commodity, futures_keyword                                  | 2025-11-08T1 0:42:22-06:00 |
| 221 | GEMG   | Leverage Shares 2X Long GEMI Daily ETF   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 222 | GEVX   | Tradr 2X Long GEV Daily ETF  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 223 | GGLL   | Direxion Daily GOOGL Bull 2X Shares  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 224 | GGLS   | Direxion Daily GOOGL Bear 1X Shares  | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected          | 2025-11-08T1 0:42:22-06:00 |
| 225 | GGN    | GAMCO Global Gold, Natural Resources & Income Trust  | Trust    | commodity_physical_trust       | type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |
| 226 | GGN\$B | GAMCO Global Gold, Natural Resources & Income Trust 5.00% Series B Cumulative 25.00 Liquidation Preference | Trust    | commodity_physical_trust       | type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |
| 227 | GLD    | SPDR Gold Trust  | Trust    | commodity_physical_trust       | etf_flag_Y, type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |
| 228 | GLDM   | SPDR Gold MiniShares Trust   | Trust    | commodity_physical_trust       | etf_flag_Y, type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |
| 229 | GLGG   | Leverage Shares 2X Long GLXY Daily ETF   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 230 | GLL    | ProShares UltraShort Gold  | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, brand_proshares_ultrashort_implies_minus2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |
| 231 | GLXU   | ETF Opportunities Trust T-REX 2X Long GLXY Daily Target ETF  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 232 | GMEU   | ETF Opp Tr T-REX 2X Long GME Daily Target ETF  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 233 | GNL    | GAMCO Natural Resources, Gold & Income Trust   | Trust    | commodity_physical_trust       | type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |
| 234 | GOLY   | Strategy Shares Gold Enhanced Yield ETF  | ETF      | commodity_futures              | etf_flag_Y, type_etf, futures_keyword   | 2025-11-08T1 0:42:22-06:00 |
| 235 | GOOX   | ETF Opportunities Trust T-Rex 2X Long Alphabet Daily Target ETF  | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 236 | GSX    | Investment Managers Series Trust II Tradr 2X Long GS Daily ETF   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 237 | GUSH   | Direxion Daily S&P; Oil & Gas Exp. & Prod. Bull 2X Shares  | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 238 | HBTC   | Listed Funds Trust Fortuna Hedged Bitcoin Fund   | Trust    | crypto_trust                   | etf_flag_Y, type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |
| 239 | HDGE   | Ranger Equity Bear Bear ETF  | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, inverse_context   | 2025-11-08T1 0:42:22-06:00 |
| 240 | HFEQ   | Tidal Trust I Unlimited HFEQ Equity Long/Short ETF   | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, inverse_context, single_stock_detected                            | 2025-11-08T1 0:42:22-06:00 |
| 241 | HIBL   | Direxion Daily S&P; 500 High Beta Bull 3X Shares   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 242 | HIBS   | Direxion Daily S&P; 500 High Beta Bear 3X Shares   | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected          | 2025-11-08T1 0:42:22-06:00 |

| #   | symbol | name   | etp_type | category                       | reasons  | timestamp                  |
|-----|--------|--|----------|--------------------------------|--|----------------------------|
| 243 | HIMZ   | Defiance Daily Target 2X Long HIMS ETF                           | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 244 | HODL   | VanEck Bitcoin Trust Common Shares of Beneficial Interest        | Trust    | crypto_trust                   | etf_flag_Y, type_trust_with_commodity  | 2025-11-08T1 0:42:22-06:00 |
| 245 | HOOG   | Leverage Shares 2X Long HOOD Daily ETF                           | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 246 | HOOX   | Defiance Daily Target 2X Long HOOD ETF                           | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 247 | IAU    | iShares Gold Trust Shares of the iShares Gold Trust              | Trust    | commodity_physical_trust       | etf_flag_Y, type_trust_with_commodity  | 2025-11-08T1 0:42:22-06:00 |
| 248 | IAUI   | NEOS ETF Trust NEOS Gold High Income ETF                         | Trust    | commodity_physical_trust       | etf_flag_Y, type_trust_with_commodity  | 2025-11-08T1 0:42:22-06:00 |
| 249 | IAUM   | iShares Gold Trust Micro Shares                                  | Trust    | commodity_physical_trust       | etf_flag_Y, type_trust_with_commodity  | 2025-11-08T1 0:42:22-06:00 |
| 250 | IBIT   | iShares Bitcoin Trust ETF  | Trust    | crypto_trust                   | etf_flag_Y, type_trust_with_commodity  | 2025-11-08T1 0:42:22-06:00 |
| 251 | IETH   | Bitwise Funds Trust Bitwise Ethereum Option Income Strategy ETF  | Trust    | crypto_futures                 | etf_flag_Y, type_trust_with_commodity, futures_keyword                         | 2025-11-08T1 0:42:22-06:00 |
| 252 | IGLD   | FT Vest Gold Strategy Target Income ETF                          | ETF      | commodity_futures              | etf_flag_Y, type_etf, futures_keyword  | 2025-11-08T1 0:42:22-06:00 |
| 253 | INDL   | Direxion Daily MSCI India Bull 2X Shares                         | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 254 | INTW   | GraniteShares 2x Long INTC Daily ETF                             | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 255 | IONL   | GraniteShares 2x Long IONQ Daily ETF                             | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 256 | IONX   | Defiance Daily Target 2X Long IONQ ETF                           | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 257 | IONZ   | Defiance Daily Target 2x Short IONQ ETF                          | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected | 2025-11-08T1 0:42:22-06:00 |
| 258 | IRE    | Tidal Trust II Defiance Daily Target 2X Long IREN ETF            | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 259 | IREX   | Investment Managers Series Trust II Tradr 2X Long IREN Daily ETF | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 260 | ISUL   | GraniteShares 2x Long ISRG Daily ETF                             | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 261 | IWDL   | ETRACS 2x Leveraged US Value Factor TR ETN                       | ETN      | leveraged_index_long           | etf_flag_Y, type_etn_by_name, leverage_context                                 | 2025-11-08T1 0:42:22-06:00 |
| 262 | IWFL   | ETRACS 2x Leveraged US Growth Factor TR ETN                      | ETN      | leveraged_index_long           | etf_flag_Y, type_etn_by_name, leverage_context                                 | 2025-11-08T1 0:42:22-06:00 |
| 263 | IWML   | ETRACS 2x Leveraged US Size Factor TR ETN                        | ETN      | leveraged_index_long           | etf_flag_Y, type_etn_by_name, leverage_context                                 | 2025-11-08T1 0:42:22-06:00 |
| 264 | JDST   | Direxion Daily Junior Gold Miners Index Bear 2X Shares           | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected | 2025-11-08T1 0:42:22-06:00 |
| 265 | JETD   | Bank Of Montreal MAX Airlines -3X Inverse Leveraged ETNs         | ETN      | leveraged_index_inverse        | etf_flag_Y, type_etn_by_name, leverage_context, inverse_context                | 2025-11-08T1 0:42:22-06:00 |
| 266 | JETU   | Bank Of Montreal MAX Airlines 3X Leveraged ETNs                  | ETN      | leveraged_index_long           | etf_flag_Y, type_etn_by_name, leverage_context                                 | 2025-11-08T1 0:42:22-06:00 |

| #   | symbol | name  | etp_type | category                       | reasons   | timestamp                  |
|-----|--------|---|----------|--------------------------------|---|----------------------------|
| 267 | JNUG   | Direxion Daily Junior Gold Miners Index Bull 2X Shares                  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 268 | JOBX   | Tradr 2X Long JOBY Daily ETF  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 269 | JPX    | Defiance Daily Target 2X Long JPM ETF                                   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 270 | KBAB   | KraneShares 2x Long BABA Daily ETF                                      | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 271 | KGLD   | Kurv ETF Trust Kurv Gold Enhanced Income ETF                            | Trust    | commodity_physical_trust       | etf_flag_Y, type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |
| 272 | KJD    | KraneShares 2x Long JD Daily ETF  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 273 | KMLI   | KraneShares 2x Long MELI Daily ETF                                      | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 274 | KOLD   | ProShares UltraShort Bloomberg Natural Gas                              | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, brand_proshares_ultrashort_implies_minus2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |
| 275 | KORU   | Direxion Daily South Korea Bull 3X Shares                               | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 276 | KPDD   | KraneShares 2x Long PDD Daily ETF                                       | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 277 | KSLV   | Kurv ETF Trust Kurv Silver Enhanced Income ETF                          | Trust    | commodity_physical_trust       | etf_flag_Y, type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |
| 278 | KTUP   | ETF Opportunities Trust T-REX 2X Long KTOS Daily Target ETF             | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 279 | LABD   | Direxion Daily S&P; Biotech Bear 3X Shares                              | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, leverage_context, inverse_context                                 | 2025-11-08T1 0:42:22-06:00 |
| 280 | LABU   | Direxion Daily S&P; Biotech Bull 3X Shares                              | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 281 | LABX   | Tradr 2X Long ALAB Daily ETF  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 282 | LBAY   | Leatherback Long/Short Alternative Yield ETF                            | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, inverse_context   | 2025-11-08T1 0:42:22-06:00 |
| 283 | LCDL   | GraniteShares 2x Long LCID Daily ETF                                    | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 284 | LLYX   | Tidal Trust II Defiance Daily Target 2X Long LLY ETF                    | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 285 | LLYZ   | Defiance Daily Target 2X Short LLY ETF                                  | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected          | 2025-11-08T1 0:42:22-06:00 |
| 286 | LMBO   | Direxion Shares ETF Trust Direxion Daily Crypto Industry Bull 2X Shares | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 287 | LMNX   | Defiance Daily Target 2x Long LMND ETF                                  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 288 | LMTL   | Direxion Daily LMT Bull 2X ETF  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 289 | LMTS   | Direxion Daily LMT Bear 1X ETF  | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected          | 2025-11-08T1 0:42:22-06:00 |
| 290 | LRCU   | Tradr 2X Long LRCX Daily ETF  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |

| #   | symbol | name  | etp_type | category                       | reasons  | timestamp                  |
|-----|--------|---|----------|--------------------------------|--|----------------------------|
| 291 | LSEQ   | Harbor ETF Trust Harbor Long-Short Equity ETF                           | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, inverse_context  | 2025-11-08T1 0:42:22-06:00 |
| 292 | LTL    | ProShares Ultra Communication Services                                  | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x  | 2025-11-08T1 0:42:22-06:00 |
| 293 | LULG   | Leverage Shares 2X Long LULU Daily ETF                                  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 294 | LYFX   | Investment Managers Series Trust II Tradr 2X Long LYFT Daily ETF        | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 295 | MAGX   | Roundhill Daily 2X Long Magnificent Seven ETF                           | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context   | 2025-11-08T1 0:42:22-06:00 |
| 296 | MAXI   | Simplify Bitcoin Strategy PLUS Income ETF                               | ETF      | crypto_futures                 | etf_flag_Y, type_etf, futures_keyword  | 2025-11-08T1 0:42:22-06:00 |
| 297 | MDBX   | Tradr 2X Long MDB Daily ETF   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 298 | METD   | Direxion Daily META Bear 1X Shares                                      | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected | 2025-11-08T1 0:42:22-06:00 |
| 299 | METU   | Direxion Daily META Bull 2X Shares                                      | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 300 | MEXX   | Direxion Daily MSCI Mexico Bull 3X Shares                               | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context   | 2025-11-08T1 0:42:22-06:00 |
| 301 | MIDU   | Direxion Mid Cap Bull 3X Shares   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 302 | MLPR   | ETRACS Quarterly Pay 1.5X Leveraged Alerian MLP Index ETN               | ETN      | leveraged_index_long           | etf_flag_Y, type_etn_by_name, leverage_context                                 | 2025-11-08T1 0:42:22-06:00 |
| 303 | MNRS   | Grayscale Funds Trust Grayscale Bitcoin Miners ETF                      | Trust    | crypto_trust                   | etf_flag_Y, type_trust_with_commodity  | 2025-11-08T1 0:42:22-06:00 |
| 304 | MPG    | Leverage Shares 2X Long MP Daily ETF                                    | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 305 | MPL    | Tidal Trust II Defiance Daily Target 2X Long MP ETF                     | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 306 | MQQQ   | Tradr 2X Long Innovation 100 Monthly ETF                                | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context   | 2025-11-08T1 0:42:22-06:00 |
| 307 | MRAL   | GraniteShares 2x Long MARA Daily ETF                                    | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 308 | MSDD   | GraniteShares 2x Short MSTR Daily ETF                                   | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected | 2025-11-08T1 0:42:22-06:00 |
| 309 | MSFD   | Direxion Daily MSFT Bear 1X Shares                                      | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected | 2025-11-08T1 0:42:22-06:00 |
| 310 | MSFL   | GraniteShares 2x Long MSFT Daily ETF                                    | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 311 | MSFU   | Direxion Daily MSFT Bull 2X Shares                                      | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 312 | MSFX   | ETF Opportunities Trust T-Rex 2X Long Microsoft Daily Target ETF        | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context   | 2025-11-08T1 0:42:22-06:00 |
| 313 | MSOO   | Themes ETF Trust Leverage Shares 2x Capped Accelerated MSTR Monthly ETF | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context   | 2025-11-08T1 0:42:22-06:00 |
| 314 | MSTP   | GraniteShares 2x Long MSTR Daily ETF                                    | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |

| #   | symbol | name   | etp_type | category                       | reasons   | timestamp                  |
|-----|--------|--|----------|--------------------------------|---|----------------------------|
| 315 | MSTU   | ETF Opportunities Trust T-Rex 2X Long MSTR Daily Target ETF                                | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 316 | MSTX   | Defiance Daily Target 2x Long MSTR ETF   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 317 | MSTZ   | ETF Opportunities Trust T-Rex 2X Inverse MSTR Daily Target ETF                             | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, leverage_context, inverse_context                                 | 2025-11-08T1 0:42:22-06:00 |
| 318 | MTUL   | ETRACS 2x Leveraged MSCI US Momentum Factor TR ETN   | ETN      | leveraged_index_long           | etf_flag_Y, type_etn_by_name, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 319 | MUD    | Direxion Daily MU Bear 1X Shares   | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected          | 2025-11-08T1 0:42:22-06:00 |
| 320 | MULL   | GraniteShares 2x Long MU Daily ETF   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 321 | MUU    | Direxion Daily MU Bull 2X Shares   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 322 | MVLL   | GraniteShares 2x Long MRVL Daily ETF   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 323 | MVO    | MV Oil Trust Units of Beneficial Interests   | Trust    | commodity_physical_trust       | type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |
| 324 | MVRL   | ETRACS Monthly Pay 1.5X Leveraged Mortgage REIT ETN  | ETN      | leveraged_index_long           | etf_flag_Y, type_etn_by_name, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 325 | MVV    | ProShares Ultra MidCap400  | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x           | 2025-11-08T1 0:42:22-06:00 |
| 326 | MYY    | ProShares Short MidCap400  | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, inverse_context   | 2025-11-08T1 0:42:22-06:00 |
| 327 | MZZ    | ProShares UltraShort MidCap400   | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, brand_proshares_ultrashort_implies_minus2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |
| 328 | NAIL   | Direxion Daily Homebuilders & Supplies Bull 3X Shares                                      | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 329 | NBIG   | Leverage Shares 2X Long NBIS Daily ETF   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 330 | NBIL   | GraniteShares 2x Long NBIS Daily ETF   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 331 | NEBX   | Trad'r 2X Long NBIS Daily ETF  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 332 | NETX   | Investment Managers Series Trust II Trad'r 2X Long NET Daily ETF                           | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 333 | NFLU   | ETF Opportunities Trust T-Rex 2X Long NFLX Daily Target ETF                                | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 334 | NFLX   | Direxion Daily NFLX Bull 2X Shares   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 335 | NFXS   | Direxion Daily NFLX Bear 1X Shares   | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected          | 2025-11-08T1 0:42:22-06:00 |
| 336 | NOWL   | GraniteShares 2x Long NOW Daily ETF  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 337 | NRGD   | Bank Of Montreal MicroSectors U.S. Big Oil -3 Inverse Leveraged ETNs due February 17, 2045 | ETN      | leveraged_index_inverse        | etf_flag_Y, type_etn_by_name, inverse_context   | 2025-11-08T1 0:42:22-06:00 |
| 338 | NRT    | North European Oil Royalty Trust Common Stock  | Trust    | commodity_physical_trust       | type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |

| #   | symbol | name  | etp_type | category                       | reasons  | timestamp                  |
|-----|--------|---|----------|--------------------------------|--|----------------------------|
| 339 | NUGT   | Direxion Daily Gold Miners Index Bull 2XShares                          | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context   | 2025-11-08T1 0:42:22-06:00 |
| 340 | NVD    | GraniteShares 2x Short NVDA Daily ETF                                   | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected | 2025-11-08T1 0:42:22-06:00 |
| 341 | NVDB   | ProShares Trust ProShares Ultra NVDA                                    | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x  | 2025-11-08T1 0:42:22-06:00 |
| 342 | NVDD   | Direxion Daily NVDA Bear 1X Shares                                      | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected | 2025-11-08T1 0:42:22-06:00 |
| 343 | NVDG   | Leverage Shares 2X Long NVDA Daily ETF                                  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 344 | NVDL   | GraniteShares 2x Long NVDA Daily ETF                                    | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 345 | NVDO   | Themes ETF Trust Leverage Shares 2x Capped Accelerated NVDA Monthly ETF | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context   | 2025-11-08T1 0:42:22-06:00 |
| 346 | NVDQ   | ETF Opportunities Trust T-Rex 2X Inverse NVIDIA Daily Target ETF        | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, leverage_context, inverse_context                        | 2025-11-08T1 0:42:22-06:00 |
| 347 | NVDS   | Tradr 1.5X Short NVDA Daily ETF   | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected | 2025-11-08T1 0:42:22-06:00 |
| 348 | NVDU   | Direxion Daily NVDA Bull 2X Shares                                      | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 349 | NVDX   | ETF Opportunities Trust T-Rex 2X Long NVIDIA Daily Target ETF           | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context   | 2025-11-08T1 0:42:22-06:00 |
| 350 | NVOX   | Tidal Trust II Defiance Daily Target 2X Long NVO ETF                    | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 351 | NVTX   | Tradr 2X Long NVTS Daily ETF  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 352 | NWMX   | Investment Managers Series Trust II Tradr 2X Long NEM Daily ETF         | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 353 | OILD   | MicroSectors Oil & Gas Exp. & Prod. -3x Inverse Leveraged ETN           | ETN      | leveraged_index_inverse        | etf_flag_Y, type_etn_by_name, leverage_context, inverse_context                | 2025-11-08T1 0:42:22-06:00 |
| 354 | OILT   | Texas Capital Funds Trust Texas Capital Texas Oil Index ETF             | Trust    | commodity_physical_trust       | etf_flag_Y, type_trust_with_commodity  | 2025-11-08T1 0:42:22-06:00 |
| 355 | OILU   | MicroSectors Oil & Gas Exp. & Prod. 3x Leveraged ETN                    | ETN      | leveraged_index_long           | etf_flag_Y, type_etn_by_name, leverage_context                                 | 2025-11-08T1 0:42:22-06:00 |
| 356 | OKLL   | Defiance Daily Target 2x Long OKLO ETF                                  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 357 | OKTX   | Investment Managers Series Trust II Tradr 2X Long OKTA Daily ETF        | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 358 | OPEX   | Investment Managers Series Trust II Tradr 2X Long OPEN Daily ETF        | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 359 | ORCX   | Defiance Daily Target 2X Long ORCL ETF                                  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 360 | ORR    | Militia Long/Short Equity ETF   | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, inverse_context  | 2025-11-08T1 0:42:22-06:00 |
| 361 | OSCG   | Leverage Shares 2X Long OSCR Daily ETF                                  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |
| 362 | OSCX   | Defiance Daily Target 2x Long OSCR ETF                                  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                  | 2025-11-08T1 0:42:22-06:00 |

| #   | symbol | name  | etp_type | category                       | reasons   | timestamp                  |
|-----|--------|---|----------|--------------------------------|---|----------------------------|
| 363 | OWNB   | Bitwise Funds Trust Bitwise Bitcoin Standard Corporations ETF           | Trust    | crypto_trust                   | etf_flag_Y, type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |
| 364 | PALD   | Direxion Daily PANW Bear 1X Shares                                      | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected          | 2025-11-08T1 0:42:22-06:00 |
| 365 | PALL   | abrdn Physical Palladium Shares ETF                                     | ETF      | commodity_physical_trust       | etf_flag_Y, type_etf, physical_keyword  | 2025-11-08T1 0:42:22-06:00 |
| 366 | PALU   | Direxion Daily PANW Bull 2X Shares                                      | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 367 | PANG   | Leverage Shares 2X Long PANW Daily ETF                                  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 368 | PDDL   | GraniteShares 2x Long PDD Daily ETF                                     | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 369 | PHYS   | Sprott Physical Gold Trust ETV  | Trust    | commodity_physical_trust       | etf_flag_Y, type_trust_with_commodity, physical_keyword                                 | 2025-11-08T1 0:42:22-06:00 |
| 370 | PILL   | Direxion Daily Pharmaceutical & Medical Bull 3X Shares                  | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 371 | PLOO   | Themes ETF Trust Leverage Shares 2x Capped Accelerated PLTR Monthly ETF | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 372 | PLTA   | ProShares Trust ProShares Ultra PLTR                                    | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x           | 2025-11-08T1 0:42:22-06:00 |
| 373 | PLTD   | Direxion Daily PLTR Bear 1X Shares                                      | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected          | 2025-11-08T1 0:42:22-06:00 |
| 374 | PLTG   | Leverage Shares 2X Long PLTR Daily ETF                                  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 375 | PLTU   | Direxion Daily PLTR Bull 2X Shares                                      | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 376 | PLTZ   | Defiance Daily Target 2x Short PLTR ETF                                 | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected          | 2025-11-08T1 0:42:22-06:00 |
| 377 | PONX   | Investment Managers Series Trust II Tradr 2X Long PONY Daily ETF        | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 378 | PPLT   | abrdn Physical Platinum Shares ETF                                      | ETF      | commodity_physical_trust       | etf_flag_Y, type_etf, physical_keyword  | 2025-11-08T1 0:42:22-06:00 |
| 379 | PSLV   | Sprott Physical Silver Trust ETV  | Trust    | commodity_physical_trust       | etf_flag_Y, type_trust_with_commodity, physical_keyword                                 | 2025-11-08T1 0:42:22-06:00 |
| 380 | PSQ    | ProShares Short QQQ   | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, inverse_context, single_stock_detected                            | 2025-11-08T1 0:42:22-06:00 |
| 381 | PST    | ProShares UltraShort Lehman 7-10 Year Treasury                          | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, brand_proshares_ultrashort_implies_minus2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |
| 382 | PTIR   | GraniteShares 2x Long PLTR Daily ETF                                    | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 383 | PULT   | Putnam ETF Trust Putnam ESG Ultra Short ETF                             | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, inverse_context, single_stock_detected                            | 2025-11-08T1 0:42:22-06:00 |
| 384 | PXIU   | ETF Opportunities Trust T-REX 2X Long UPXI Daily Target ETF             | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 385 | PYPG   | Leverage Shares 2X Long PYPL Daily ETF                                  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 386 | QBER   | Elevation Series Trust TrueShares Quarterly Bear Hedge ETF              | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, inverse_context   | 2025-11-08T1 0:42:22-06:00 |

| #   | symbol | name   | etp_type | category                       | reasons   | timestamp                  |
|-----|--------|--|----------|--------------------------------|---|----------------------------|
| 387 | QBF    | Innovator ETFs Trust Innovator Uncapped Bitcoin 20 Floor ETF - Quarterly | Trust    | crypto_trust                   | etf_flag_Y, type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |
| 388 | QBTX   | Tradr 2X Long QBTS Daily ETF   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 389 | QBTZ   | Defiance Daily Target 2x Short QBTS ETF                                  | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected          | 2025-11-08T1 0:42:22-06:00 |
| 390 | QCMD   | Direxion Daily QCOM Bear 1X ETF  | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected          | 2025-11-08T1 0:42:22-06:00 |
| 391 | QCML   | GraniteShares 2x Long QCOM Daily ETF                                     | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 392 | QCMU   | Direxion Daily QCOM Bull 2X ETF  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 393 | QID    | ProShares UltraShort QQQ   | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, brand_proshares_ultrashort_implies_minus2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |
| 394 | QLD    | ProShares Ultra QQQ  | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x           | 2025-11-08T1 0:42:22-06:00 |
| 395 | QPUX   | Defiance 2X Daily Long Pure Quantum ETF                                  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 396 | QQDN   | ProShares UltraShort QQQ Mega  | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, brand_proshares_ultrashort_implies_minus2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |
| 397 | QQDQ   | Direxion Daily Magnificent 7 Bear 1X Shares                              | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, leverage_context, inverse_context                                 | 2025-11-08T1 0:42:22-06:00 |
| 398 | QQQP   | Tradr 2X Long Innovation 100 Quarterly ETF                               | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 399 | QQQU   | Direxion Daily Magnificent 7 Bull 2X Shares                              | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 400 | QQUP   | ProShares Ultra QQQ Mega   | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x           | 2025-11-08T1 0:42:22-06:00 |
| 401 | QQXL   | ProShares Ultra QQQ Top 30   | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x           | 2025-11-08T1 0:42:22-06:00 |
| 402 | QSU    | Tidal Trust II Defiance Daily Target 2X Long QS ETF                      | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 403 | QSX    | Investment Managers Series Trust II Tradr 2X Long QS Daily ETF           | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 404 | QUBX   | Tradr 2X Long QUBT Daily ETF   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 405 | QULL   | ETRACS 2x Leveraged MSCI US Quality Factor TR ETN                        | ETN      | leveraged_index_long           | etf_flag_Y, type_etn_by_name, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 406 | RBLU   | ETF Opportunities Trust T-REX 2X Long RBLX Daily Target ETF              | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 407 | RDTL   | GraniteShares 2x Long RDDT Daily ETF                                     | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 408 | REK    | ProShares Short Real Estate  | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, inverse_context, single_stock_detected                            | 2025-11-08T1 0:42:22-06:00 |
| 409 | REKT   | Direxion Shares ETF Trust Direxion Daily Crypto Industry Bear 1X Shares  | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, leverage_context, inverse_context                                 | 2025-11-08T1 0:42:22-06:00 |
| 410 | RETL   | Direxion Daily Retail Bull 3X Shares ETF                                 | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context  | 2025-11-08T1 0:42:22-06:00 |

| #   | symbol | name   | etp_type | category                       | reasons  | timestamp                  |
|-----|--------|--|----------|--------------------------------|--|----------------------------|
| 411 | REW    | ProShares UltraShort Technology                              | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, brand_proshares_ultrashort_implies_minus2x, implied_multiplier_2x                  | 2025-11-08T1 0:42:22-06:00 |
| 412 | RGTU   | Tradr 2X Long RGTI Daily ETF                                 | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected  | 2025-11-08T1 0:42:22-06:00 |
| 413 | RGTX   | Defiance Daily Target 2X Long RGTI ETF                       | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected  | 2025-11-08T1 0:42:22-06:00 |
| 414 | RGTZ   | Defiance Daily Target 2x Short RGTI ETF                      | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 415 | RIOX   | Tidal Trust II Defiance Daily Target 2X Long RIOT ETF        | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected  | 2025-11-08T1 0:42:22-06:00 |
| 416 | RKLX   | Defiance Daily Target 2X Long RKLX ETF                       | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected  | 2025-11-08T1 0:42:22-06:00 |
| 417 | ROBN   | ETF Opportunities Trust T-Rex 2X Long HOOD Daily Target ETF  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected  | 2025-11-08T1 0:42:22-06:00 |
| 418 | ROM    | ProShares Ultra Technology                                   | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x                            | 2025-11-08T1 0:42:22-06:00 |
| 419 | RSSX   | Tidal Trust II Return Stacked U.S. Stocks & Gold/Bitcoin ETF | Trust    | crypto_trust                   | etf_flag_Y, type_trust_with_commodity  | 2025-11-08T1 0:42:22-06:00 |
| 420 | RTXG   | Leverage Shares 2X Long RTX Daily ETF                        | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected  | 2025-11-08T1 0:42:22-06:00 |
| 421 | RVNL   | GraniteShares 2x Long RIVN Daily ETF                         | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected  | 2025-11-08T1 0:42:22-06:00 |
| 422 | RWM    | ProShares Short Russell2000                                  | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, inverse_context  | 2025-11-08T1 0:42:22-06:00 |
| 423 | RXD    | ProShares UltraShort Health Care                             | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, brand_proshares_ultrashort_implies_minus2x, implied_multiplier_2x                  | 2025-11-08T1 0:42:22-06:00 |
| 424 | RXL    | ProShares Ultra Health Care                                  | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x                            | 2025-11-08T1 0:42:22-06:00 |
| 425 | SAA    | ProShares Ultra SmallCap600                                  | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x                            | 2025-11-08T1 0:42:22-06:00 |
| 426 | SARK   | Tradr 1X Short Innovation Daily ETF                          | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, inverse_context  | 2025-11-08T1 0:42:22-06:00 |
| 427 | SBB    | ProShares Short SmallCap600                                  | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, inverse_context  | 2025-11-08T1 0:42:22-06:00 |
| 428 | SBIT   | ProShares Trust ProShares UltraShort Bitcoin ETF             | Trust    | leveraged_index_inverse        | etf_flag_Y, type_trust_with_commodity, brand_proshares_ultrashort_implies_minus2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |
| 429 | SBTU   | ETF Opportunities Trust T-REX 2X Long SBET Daily Target ETF  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected  | 2025-11-08T1 0:42:22-06:00 |
| 430 | SCC    | ProShares UltraShort Consumer Discretionary                  | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, brand_proshares_ultrashort_implies_minus2x, implied_multiplier_2x                  | 2025-11-08T1 0:42:22-06:00 |
| 431 | SCDL   | ETRACS 2x Leveraged US Dividend Factor TR ETN                | ETN      | leveraged_index_long           | etf_flag_Y, type_etn_by_name, leverage_context   | 2025-11-08T1 0:42:22-06:00 |
| 432 | SCLS   | Stoneport Advisors Commodity Long Short ETF                  | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, inverse_context, single_stock_detected   | 2025-11-08T1 0:42:22-06:00 |
| 433 | SCO    | ProShares UltraShort Bloomberg Crude Oil                     | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, brand_proshares_ultrashort_implies_minus2x, implied_multiplier_2x                  | 2025-11-08T1 0:42:22-06:00 |

| #   | symbol | name  | etp_type | category                       | reasons   | timestamp                  |
|-----|--------|---|----------|--------------------------------|---|----------------------------|
| 434 | SDD    | ProShares UltraShort SmallCap600  | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, brand_proshares_ultrashort_implies_minus2x, implied_multiplier_2x             | 2025-11-08T1 0:42:22-06:00 |
| 435 | SDOW   | UltraPro Short Dow30  | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, brand_ultrapro_implies_3x, inverse_keyword_under_brand, implied_multiplier_3x | 2025-11-08T1 0:42:22-06:00 |
| 436 | SDP    | ProShares UltraShort Utilities  | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, brand_proshares_ultrashort_implies_minus2x, implied_multiplier_2x             | 2025-11-08T1 0:42:22-06:00 |
| 437 | SDS    | ProShares UltraShort S&P500;  | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, brand_proshares_ultrashort_implies_minus2x, implied_multiplier_2x             | 2025-11-08T1 0:42:22-06:00 |
| 438 | SEF    | ProShares Short Financials  | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, inverse_context   | 2025-11-08T1 0:42:22-06:00 |
| 439 | SETH   | ProShares Short Ether ETF   | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, inverse_context, single_stock_detected  | 2025-11-08T1 0:42:22-06:00 |
| 440 | SGOL   | abrdn Physical Gold Shares ETF  | ETF      | commodity_physical_trust       | etf_flag_Y, type_etf, physical_keyword  | 2025-11-08T1 0:42:22-06:00 |
| 441 | SH     | ProShares Short S&P500;   | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, inverse_context, single_stock_detected  | 2025-11-08T1 0:42:22-06:00 |
| 442 | SHNY   | Bank Of Montreal MicroSectors Gold 3X Leveraged ETNs due January 29, 2043 | ETN      | leveraged_index_long           | etf_flag_Y, type_etn_by_name, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 443 | SHPD   | Direxion Daily SHOP Bear 1X ETF   | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected                      | 2025-11-08T1 0:42:22-06:00 |
| 444 | SHPU   | Direxion Daily SHOP Bull 2X ETF   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                                       | 2025-11-08T1 0:42:22-06:00 |
| 445 | SHRT   | Gotham Short Strategies ETF   | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, inverse_context   | 2025-11-08T1 0:42:22-06:00 |
| 446 | SHYD   | VanEck ETF Trust VanEck Short High Yield Muni ETF                         | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, inverse_context, single_stock_detected  | 2025-11-08T1 0:42:22-06:00 |
| 447 | SIJ    | ProShares UltraShort Industrials  | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, brand_proshares_ultrashort_implies_minus2x, implied_multiplier_2x             | 2025-11-08T1 0:42:22-06:00 |
| 448 | SILJ   | Amplify ETF Trust Amplify Junior Silver Miners ETF                        | Trust    | commodity_physical_trust       | etf_flag_Y, type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |
| 449 | SIVR   | abrdn Physical Silver Shares ETF  | ETF      | commodity_physical_trust       | etf_flag_Y, type_etf, physical_keyword  | 2025-11-08T1 0:42:22-06:00 |
| 450 | SJB    | ProShares Short High Yield  | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, inverse_context, single_stock_detected  | 2025-11-08T1 0:42:22-06:00 |
| 451 | SKF    | ProShares UltraShort Financials   | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, brand_proshares_ultrashort_implies_minus2x, implied_multiplier_2x             | 2025-11-08T1 0:42:22-06:00 |
| 452 | SKRE   | Tuttle Capital Daily 2X Inverse Regional Banks ETF                        | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, leverage_context, inverse_context   | 2025-11-08T1 0:42:22-06:00 |
| 453 | SKYU   | ProShares Ultra Cloud Computing   | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x                       | 2025-11-08T1 0:42:22-06:00 |
| 454 | SLON   | ProShares Trust ProShares Ultra Solana ETF                                | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x                       | 2025-11-08T1 0:42:22-06:00 |
| 455 | SLTY   | Tidal Trust II YieldMax Ultra Short Option Income Strategy ETF            | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, inverse_context   | 2025-11-08T1 0:42:22-06:00 |
| 456 | SLV    | iShares Silver Trust  | Trust    | commodity_physical_trust       | etf_flag_Y, type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |
| 457 | SLVR   | Sprott Silver Miners & Physical Silver ETF                                | ETF      | commodity_physical_trust       | etf_flag_Y, type_etf, physical_keyword  | 2025-11-08T1 0:42:22-06:00 |

| #   | symbol | name   | etp_type | category                       | reasons   | timestamp                  |
|-----|--------|--|----------|--------------------------------|---|----------------------------|
| 458 | SMCL   | GraniteShares 2x Long SMCI Daily ETF                                 | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                                       | 2025-11-08T1 0:42:22-06:00 |
| 459 | SMCX   | Defiance Daily Target 2X Long SMCI ETF                               | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                                       | 2025-11-08T1 0:42:22-06:00 |
| 460 | SMCZ   | Defiance Daily Target 2X Short SMCI ETF                              | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected                      | 2025-11-08T1 0:42:22-06:00 |
| 461 | SMDD   | UltraPro Short MidCap400   | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, brand_ultrapro_implies_3x, inverse_keyword_under_brand, implied_multiplier_3x | 2025-11-08T1 0:42:22-06:00 |
| 462 | SMHB   | ETRACS Monthly Pay 2x Leveraged Small Cap High Dividend ETN Series B | ETN      | leveraged_index_long           | type_etn_by_name, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 463 | SMN    | ProShares UltraShort Materials                                       | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, brand_proshares_ultrashort_implies_minus2x, implied_multiplier_2x             | 2025-11-08T1 0:42:22-06:00 |
| 464 | SMST   | Defiance Daily Target 2x Short MSTR ETF                              | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected                      | 2025-11-08T1 0:42:22-06:00 |
| 465 | SMU    | Tradr 2X Long SMR Daily ETF  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                                       | 2025-11-08T1 0:42:22-06:00 |
| 466 | SMUP   | ETF Opportunities Trust T-REX 2X Long SMR Daily Target ETF           | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                                       | 2025-11-08T1 0:42:22-06:00 |
| 467 | SNOU   | ETF Opp Tr T-REX 2X Long SNOW Daily Target ETF                       | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                                       | 2025-11-08T1 0:42:22-06:00 |
| 468 | SOFX   | Defiance Daily Target 2X Long SOFI ETF                               | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                                       | 2025-11-08T1 0:42:22-06:00 |
| 469 | SOLT   | 2x Solana ETF  | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 470 | SOUX   | Defiance Daily Target 2X Long SOUN ETF                               | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                                       | 2025-11-08T1 0:42:22-06:00 |
| 471 | SOXL   | Direxion Daily Semiconductor Bull 3x Shares                          | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 472 | SOXS   | Direxion Daily Semiconductor Bear 3x Shares                          | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, leverage_context, inverse_context   | 2025-11-08T1 0:42:22-06:00 |
| 473 | SPBC   | Simplify US Equity PLUS Bitcoin Strategy ETF                         | ETF      | crypto_futures                 | etf_flag_Y, type_etf, futures_keyword   | 2025-11-08T1 0:42:22-06:00 |
| 474 | SPDN   | Direxion Daily S&P; 500 Bear 1X Shares                               | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, leverage_context, inverse_context   | 2025-11-08T1 0:42:22-06:00 |
| 475 | SPPP   | Sprott Physical Platinum and Palladium Trust                         | Trust    | commodity_physical_trust       | etf_flag_Y, type_trust_with_commodity, physical_keyword   | 2025-11-08T1 0:42:22-06:00 |
| 476 | SPUU   | Direxion Daily S&P; 500 Bull 2X Shares                               | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 477 | SPXL   | Direxion Daily S&P; 500 Bull 3X Shares                               | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 478 | SPXS   | Direxion Daily S&P; 500 Bear 3X                                      | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, leverage_context, inverse_context   | 2025-11-08T1 0:42:22-06:00 |
| 479 | SPXU   | ProShares UltraPro Short S&P500;                                     | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, brand_ultrapro_implies_3x, inverse_keyword_under_brand, implied_multiplier_3x | 2025-11-08T1 0:42:22-06:00 |
| 480 | SPYQ   | Tradr 2X Long SPY Quarterly ETF                                      | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                                       | 2025-11-08T1 0:42:22-06:00 |
| 481 | SPYU   | Bank Of Montreal MAX S&P; 500 4X Leveraged ETNs due October 30, 2043 | ETN      | leveraged_index_long           | etf_flag_Y, type_etn_by_name, leverage_context  | 2025-11-08T1 0:42:22-06:00 |

| #   | symbol | name   | etp_type | category                       | reasons   | timestamp                  |
|-----|--------|--|----------|--------------------------------|---|----------------------------|
| 482 | SQQQ   | ProShares UltraPro Short QQQ   | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, brand_ultrapro_implies_3x, inverse_keyword_under_brand, implied_multiplier_3x | 2025-11-08T1 0:42:22-06:00 |
| 483 | SRPU   | Investment Managers Series Trust II Tradr 2X Long SRPT Daily ETF       | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                                       | 2025-11-08T1 0:42:22-06:00 |
| 484 | SRS    | ProShares UltraShort Real Estate                                       | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, brand_proshares_ultrashort_implies_minus2x, implied_multiplier_2x             | 2025-11-08T1 0:42:22-06:00 |
| 485 | SRTY   | ProShares UltraPro Short Russell2000                                   | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, brand_ultrapro_implies_3x, inverse_keyword_under_brand, implied_multiplier_3x | 2025-11-08T1 0:42:22-06:00 |
| 486 | SSG    | ProShares UltraShort Semiconductors                                    | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, brand_proshares_ultrashort_implies_minus2x, implied_multiplier_2x             | 2025-11-08T1 0:42:22-06:00 |
| 487 | SSO    | ProShares Ultra S&P500;  | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x                       | 2025-11-08T1 0:42:22-06:00 |
| 488 | SVIX   | VS TR -1x Short VIX Futures ETF  | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, inverse_context, single_stock_detected  | 2025-11-08T1 0:42:22-06:00 |
| 489 | SVXY   | ProShares Short VIX Short Term Futures ETF                             | ETF      | commodity_futures              | etf_flag_Y, type_etf, futures_keyword   | 2025-11-08T1 0:42:22-06:00 |
| 490 | SZK    | ProShares UltraShort Consumer Staples                                  | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, brand_proshares_ultrashort_implies_minus2x, implied_multiplier_2x             | 2025-11-08T1 0:42:22-06:00 |
| 491 | TARK   | Tradr 2X Long Innovation ETF   | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 492 | TBF    | ProShares Short 20+ Year Treasury                                      | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, inverse_context   | 2025-11-08T1 0:42:22-06:00 |
| 493 | TBT    | ProShares UltraShort Lehman 20 Year Treasury                           | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, brand_proshares_ultrashort_implies_minus2x, implied_multiplier_2x             | 2025-11-08T1 0:42:22-06:00 |
| 494 | TBX    | ProShares Short 7 10 Year Treasury                                     | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, inverse_context   | 2025-11-08T1 0:42:22-06:00 |
| 495 | TBXU   | Direxion Shares ETF Trust Direxion Daily Biotech Top 5 Bull 2X ETF     | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 496 | TECL   | Direxion Technology Bull 3X Shares                                     | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 497 | TECS   | Direxion Technology Bear 3X Shares                                     | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, leverage_context, inverse_context   | 2025-11-08T1 0:42:22-06:00 |
| 498 | TEMFT  | Tradr 2X Long TEM Daily ETF  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                                       | 2025-11-08T1 0:42:22-06:00 |
| 499 | TEXU   | Direxion Shares ETF Trust Direxion Daily Energy Top 5 Bull 2X ETF      | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 500 | TMF    | Direxion Daily 20-Yr Treasury Bull 3x Shrs                             | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 501 | TMV    | Direxion Daily 20-Year Treasury Bear 3X                                | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, leverage_context, inverse_context   | 2025-11-08T1 0:42:22-06:00 |
| 502 | TNA    | Direxion Small Cap Bull 3X Shares                                      | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                                       | 2025-11-08T1 0:42:22-06:00 |
| 503 | TOAK   | Manager Directed Portfolios Twin Oak Short Horizon Absolute Return ETF | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, inverse_context   | 2025-11-08T1 0:42:22-06:00 |
| 504 | TPOR   | Direxion Daily Transportation Bull 3X Shares                           | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 505 | TQQQ   | ProShares UltraPro QQQ   | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, brand_ultrapro_implies_3x, implied_multiplier_3x                              | 2025-11-08T1 0:42:22-06:00 |

| #   | symbol | name  | etp_type | category                       | reasons   | timestamp                  |
|-----|--------|---|----------|--------------------------------|---|----------------------------|
| 506 | TSDD   | GraniteShares 2x Short TSLA Daily ETF                                     | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected                      | 2025-11-08T1 0:42:22-06:00 |
| 507 | TSLG   | Leverage Shares 2X Long TSLA Daily ETF                                    | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                                       | 2025-11-08T1 0:42:22-06:00 |
| 508 | TSLI   | ProShares Trust ProShares Ultra TSLA                                      | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x                       | 2025-11-08T1 0:42:22-06:00 |
| 509 | TSLL   | Direxion Daily TSLA Bull 2X Shares  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                                       | 2025-11-08T1 0:42:22-06:00 |
| 510 | TSLO   | Themes ETF Trust Leverage Shares 2x Capped Accelerated TSLA Monthly ETF   | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 511 | TSLQ   | Tradr 2X Short TSLA Daily ETF   | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected                      | 2025-11-08T1 0:42:22-06:00 |
| 512 | TSLR   | GraniteShares 2x Long TSLA Daily ETF                                      | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                                       | 2025-11-08T1 0:42:22-06:00 |
| 513 | TSLS   | Direxion Daily TSLA Bear 1X Shares  | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected                      | 2025-11-08T1 0:42:22-06:00 |
| 514 | TSLT   | ETF Opportunities Trust T-REX 2X Long Tesla Daily Target ETF              | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                                       | 2025-11-08T1 0:42:22-06:00 |
| 515 | TSLZ   | ETF Opportunities Trust T-Rex 2X Inverse Tesla Daily Target ETF           | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, leverage_context, inverse_context   | 2025-11-08T1 0:42:22-06:00 |
| 516 | TSMG   | Leverage Shares 2X Long TSM Daily ETF                                     | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                                       | 2025-11-08T1 0:42:22-06:00 |
| 517 | TSMU   | GraniteShares 2x Long TSM Daily ETF                                       | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                                       | 2025-11-08T1 0:42:22-06:00 |
| 518 | TSMX   | Direxion Daily TSM Bull 2X Shares   | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                                       | 2025-11-08T1 0:42:22-06:00 |
| 519 | TSMZ   | Direxion Daily TSM Bear 1X Shares   | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected                      | 2025-11-08T1 0:42:22-06:00 |
| 520 | TSXD   | Direxion Shares ETF Trust Direxion Daily Semiconductors Top 5 Bear 2X ETF | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, leverage_context, inverse_context   | 2025-11-08T1 0:42:22-06:00 |
| 521 | TSXU   | Direxion Shares ETF Trust Direxion Daily Semiconductors Top 5 Bull 2X ETF | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 522 | TTDU   | ETF Opportunities Trust T-REX 2X Long TTD Daily Target ETF                | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                                       | 2025-11-08T1 0:42:22-06:00 |
| 523 | TTT    | ProShares UltraPro Short 20 Year Treasury                                 | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, brand_ultrapro_implies_3x, inverse_keyword_under_brand, implied_multiplier_3x | 2025-11-08T1 0:42:22-06:00 |
| 524 | TTXD   | Direxion Shares ETF Trust Direxion Daily Technology Top 5 Bear 2X ETF     | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, leverage_context, inverse_context   | 2025-11-08T1 0:42:22-06:00 |
| 525 | TTXU   | Direxion Shares ETF Trust Direxion Daily Technology Top 5 Bull 2X ETF     | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 526 | TWM    | ProShares UltraShort Russell2000  | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, brand_proshares_ultrashort_implies_minus2x, implied_multiplier_2x             | 2025-11-08T1 0:42:22-06:00 |
| 527 | TYD    | Direxion Daily 10-Yr Treasury Bull 3x Shrs                                | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 528 | TYO    | Direxion Daily 10-Yr Treasury Bear 3x Shrs                                | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, leverage_context, inverse_context   | 2025-11-08T1 0:42:22-06:00 |
| 529 | TZA    | Direxion Small Cap Bear 3X Shares   | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected                      | 2025-11-08T1 0:42:22-06:00 |

| #   | symbol | name   | etp_type | category                    | reasons   | timestamp                  |
|-----|--------|--|----------|-----------------------------|---|----------------------------|
| 530 | UBOT   | Direxion Daily Robotics, Artificial Intelligence & Automation Index Bull 2X Shares | ETF      | leveraged_single_stock_long | etf_flag_Y, type_etf, leverage_context, single_stock_detected                 | 2025-11-08T1 0:42:22-06:00 |
| 531 | UBR    | ProShares Ultra MSCI Brazil Capped   | ETF      | leveraged_index_long        | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |
| 532 | UBRL   | GraniteShares 2x Long UBER Daily ETF   | ETF      | leveraged_single_stock_long | etf_flag_Y, type_etf, leverage_context, single_stock_detected                 | 2025-11-08T1 0:42:22-06:00 |
| 533 | UBT    | ProShares Ultra 20+ Year Treasury  | ETF      | leveraged_index_long        | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |
| 534 | UCC    | ProShares Ultra Consumer Discretionary   | ETF      | leveraged_index_long        | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |
| 535 | UCO    | ProShares Ultra Bloomberg Crude Oil  | ETF      | leveraged_index_long        | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |
| 536 | UCYB   | ProShares Ultra Nasdaq Cybersecurity   | ETF      | leveraged_index_long        | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |
| 537 | UDOW   | ProShares UltraPro Dow30   | ETF      | leveraged_index_long        | etf_flag_Y, type_etf, brand_ultrapro_implies_3x, implied_multiplier_3x        | 2025-11-08T1 0:42:22-06:00 |
| 538 | UGE    | ProShares Ultra Consumer Staples   | ETF      | leveraged_index_long        | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |
| 539 | UGL    | ProShares Ultra Gold   | ETF      | leveraged_index_long        | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |
| 540 | UJB    | ProShares Ultra High Yield ETF   | ETF      | leveraged_index_long        | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |
| 541 | ULE    | ProShares Ultra Euro   | ETF      | leveraged_index_long        | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |
| 542 | UMDD   | UltraPro MidCap400   | ETF      | leveraged_index_long        | etf_flag_Y, type_etf, brand_ultrapro_implies_3x, implied_multiplier_3x        | 2025-11-08T1 0:42:22-06:00 |
| 543 | UNHG   | Leverage Shares 2X Long UNH Daily ETF  | ETF      | leveraged_single_stock_long | etf_flag_Y, type_etf, leverage_context, single_stock_detected                 | 2025-11-08T1 0:42:22-06:00 |
| 544 | UNX    | Investment Managers Series Trust II Tradr 2X Long U Daily ETF                      | ETF      | leveraged_single_stock_long | etf_flag_Y, type_etf, leverage_context, single_stock_detected                 | 2025-11-08T1 0:42:22-06:00 |
| 545 | UPRO   | ProShares UltraPro S&P; 500  | ETF      | leveraged_index_long        | etf_flag_Y, type_etf, brand_ultrapro_implies_3x, implied_multiplier_3x        | 2025-11-08T1 0:42:22-06:00 |
| 546 | UPSX   | Tradr 2X Long UPST Daily ETF   | ETF      | leveraged_single_stock_long | etf_flag_Y, type_etf, leverage_context, single_stock_detected                 | 2025-11-08T1 0:42:22-06:00 |
| 547 | UPV    | ProShares Ultra FTSE Europe  | ETF      | leveraged_index_long        | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |
| 548 | UPW    | ProShares Ultra Utilities  | ETF      | leveraged_index_long        | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |
| 549 | URAA   | Direxion Shares ETF Trust Direxion Daily Uranium Industry Bull 2X Shares           | ETF      | leveraged_index_long        | etf_flag_Y, type_etf, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 550 | URE    | ProShares Ultra Real Estate  | ETF      | leveraged_index_long        | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |
| 551 | URSP   | ProShares Trust ProShares Ultra S&P; 500 Equal Weight                              | ETF      | leveraged_index_long        | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |
| 552 | URTY   | ProShares UltraPro Russell2000   | ETF      | leveraged_index_long        | etf_flag_Y, type_etf, brand_ultrapro_implies_3x, implied_multiplier_3x        | 2025-11-08T1 0:42:22-06:00 |
| 553 | USD    | ProShares Ultra Semiconductors   | ETF      | leveraged_index_long        | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |

| #   | symbol | name   | etp_type | category                    | reasons   | timestamp                  |
|-----|--------|--|----------|-----------------------------|---|----------------------------|
| 554 | USG    | USCF Gold Strategy Plus Income Fund  | ETF      | commodity_futures           | etf_flag_Y, type_etf, futures_keyword   | 2025-11-08T1 0:42:22-06:00 |
| 555 | USML   | ETRACS 2x Leveraged MSCI US Minimum Volatility Factor TR ETN                 | ETN      | leveraged_index_long        | etf_flag_Y, type_etn_by_name, leverage_context                                | 2025-11-08T1 0:42:22-06:00 |
| 556 | USNG   | Amplify ETF Trust Amplify Samsung U.S. Natural Gas Infrastructure ETF        | Trust    | commodity_physical_trust    | etf_flag_Y, type_trust_with_commodity   | 2025-11-08T1 0:42:22-06:00 |
| 557 | UST    | ProShares Ultra 7-10 Year Treasury   | ETF      | leveraged_index_long        | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |
| 558 | UTSL   | Direxion Daily Utilities Bull 3X Shares                                      | ETF      | leveraged_index_long        | etf_flag_Y, type_etf, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 559 | UVIX   | VS TR 2x Long VIX Futures ETF  | ETF      | leveraged_single_stock_long | etf_flag_Y, type_etf, leverage_context, single_stock_detected                 | 2025-11-08T1 0:42:22-06:00 |
| 560 | UVXY   | ProShares Trust Ultra VIX Short Term Futures ETF                             | Trust    | commodity_futures           | etf_flag_Y, type_trust_with_commodity, futures_keyword                        | 2025-11-08T1 0:42:22-06:00 |
| 561 | UWM    | ProShares Ultra Russell2000  | ETF      | leveraged_index_long        | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |
| 562 | UXI    | ProShares Ultra Industrials  | ETF      | leveraged_index_long        | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |
| 563 | UXRP   | ProShares Trust ProShares Ultra XRP ETF                                      | ETF      | leveraged_index_long        | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |
| 564 | UYG    | ProShares Ultra Financials   | ETF      | leveraged_index_long        | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |
| 565 | UYM    | ProShares Ultra Materials  | ETF      | leveraged_index_long        | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |
| 566 | VIXM   | ProShares Trust VIX Mid-Term Futures ETF                                     | Trust    | commodity_futures           | etf_flag_Y, type_trust_with_commodity, futures_keyword                        | 2025-11-08T1 0:42:22-06:00 |
| 567 | VIXY   | ProShares Trust VIX Short-Term Futures ETF                                   | Trust    | commodity_futures           | etf_flag_Y, type_trust_with_commodity, futures_keyword                        | 2025-11-08T1 0:42:22-06:00 |
| 568 | VOYX   | Tradr 2X Long VOYG Daily ETF   | ETF      | leveraged_single_stock_long | etf_flag_Y, type_etf, leverage_context, single_stock_detected                 | 2025-11-08T1 0:42:22-06:00 |
| 569 | VRTL   | GraniteShares 2x Long VRT Daily ETF  | ETF      | leveraged_single_stock_long | etf_flag_Y, type_etf, leverage_context, single_stock_detected                 | 2025-11-08T1 0:42:22-06:00 |
| 570 | VSTL   | Defiance Daily Target 2X Long VST ETF  | ETF      | leveraged_single_stock_long | etf_flag_Y, type_etf, leverage_context, single_stock_detected                 | 2025-11-08T1 0:42:22-06:00 |
| 571 | VXX    | iPath Series B S&P; 500 VIX Short-Term Futures ETN                           | ETN      | commodity_futures           | type_etn_by_name, futures_keyword   | 2025-11-08T1 0:42:22-06:00 |
| 572 | VXZ    | iPath Series B S&P; 500 VIX Mid-Term Futures ETN                             | ETN      | commodity_futures           | type_etn_by_name, futures_keyword   | 2025-11-08T1 0:42:22-06:00 |
| 573 | VYLD   | J P Morgan Chase & Co Inverse VIX Short-Term Futures ETNs due March 22, 2045 | ETN      | commodity_futures           | etf_flag_Y, type_etn_by_name, futures_keyword                                 | 2025-11-08T1 0:42:22-06:00 |
| 574 | WANT   | Direxion Daily Consumer Discretionary Bull 3X Shares                         | ETF      | leveraged_index_long        | etf_flag_Y, type_etf, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 575 | WEBL   | Direxion Daily Dow Jones Internet Bull 3X Shares                             | ETF      | leveraged_index_long        | etf_flag_Y, type_etf, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 576 | WEBS   | Direxion Daily Dow Jones Internet Bear 3X Shares                             | ETF      | leveraged_index_inverse     | etf_flag_Y, type_etf, leverage_context, inverse_context                       | 2025-11-08T1 0:42:22-06:00 |
| 577 | WHTX   | Volatility Shares Trust 2x Wheat ETF   | ETF      | leveraged_index_long        | etf_flag_Y, type_etf, leverage_context  | 2025-11-08T1 0:42:22-06:00 |

| #   | symbol | name  | etp_type | category                       | reasons   | timestamp                  |
|-----|--------|---|----------|--------------------------------|---|----------------------------|
| 578 | WILD   | Tidal Trust III VistaShares Animal Spirits Daily 2X Strategy ETF      | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 579 | WNTR   | Tidal Trust II YieldMax MSTR Short Option Income Strategy ETF         | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, inverse_context   | 2025-11-08T1 0:42:22-06:00 |
| 580 | WTID   | Bank Of Montreal MicroSectors Energy 3X Inverse Leveraged ETNs        | ETN      | leveraged_index_inverse        | etf_flag_Y, type_etn_by_name, leverage_context, inverse_context                         | 2025-11-08T1 0:42:22-06:00 |
| 581 | WTIU   | Bank Of Montreal MicroSectors Energy 3X Leveraged ETNs                | ETN      | leveraged_index_long           | etf_flag_Y, type_etn_by_name, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 582 | WULX   | Investment Managers Series Trust II Tradr 2X Long WULF Daily ETF      | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 583 | WXET   | Listed Funds Trust Teucrimum 2x Daily Wheat ETF                       | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 584 | XOMX   | Direxion Daily XOM Bull 2X Shares                                     | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 585 | XOMZ   | Direxion Daily XOM Bear 1X Shares                                     | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected          | 2025-11-08T1 0:42:22-06:00 |
| 586 | XPM    | Defiance Daily Target 2x Long PM ETF                                  | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 587 | XPP    | ProShares Ultra FTSE China 50   | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x           | 2025-11-08T1 0:42:22-06:00 |
| 588 | XRPT   | Volatility Shares Trust XRP 2X ETF                                    | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, leverage_context  | 2025-11-08T1 0:42:22-06:00 |
| 589 | XXRP   | Listed Funds Trust Teucrimum 2x Long Daily XRP ETF                    | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 590 | XYZG   | Leverage Shares 2X Long XYZ Daily ETF                                 | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 591 | YANG   | Direxion Daily FTSE China Bear 3x Shares                              | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, leverage_context, inverse_context, single_stock_detected          | 2025-11-08T1 0:42:22-06:00 |
| 592 | YBIT   | Tidal Trust II YieldMax Bitcoin Option Income Strategy ETF            | Trust    | crypto_futures                 | etf_flag_Y, type_trust_with_commodity, futures_keyword                                  | 2025-11-08T1 0:42:22-06:00 |
| 593 | YBTC   | Roundhill ETF Trust Roundhill Bitcoin Covered Call Strategy ETF       | Trust    | crypto_futures                 | etf_flag_Y, type_trust_with_commodity, futures_keyword                                  | 2025-11-08T1 0:42:22-06:00 |
| 594 | YCL    | ProShares Ultra Yen   | ETF      | leveraged_index_long           | etf_flag_Y, type_etf, brand_proshares_ultra_implies_2x, implied_multiplier_2x           | 2025-11-08T1 0:42:22-06:00 |
| 595 | YCS    | ProShares UltraShort Yen New  | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, brand_proshares_ultrashort_implies_minus2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |
| 596 | YETH   | Roundhill ETF Trust Roundhill Ether Covered Call Strategy ETF         | Trust    | crypto_futures                 | etf_flag_Y, type_trust_with_commodity, futures_keyword                                  | 2025-11-08T1 0:42:22-06:00 |
| 597 | YGLD   | Simplify Exchange Traded Funds Simplify Gold Strategy PLUS Income ETF | ETF      | commodity_futures              | etf_flag_Y, type_etf, futures_keyword   | 2025-11-08T1 0:42:22-06:00 |
| 598 | YINN   | Direxion Daily FTSE China Bull 3x Shares                              | ETF      | leveraged_single_stock_long    | etf_flag_Y, type_etf, leverage_context, single_stock_detected                           | 2025-11-08T1 0:42:22-06:00 |
| 599 | YQQQ   | YieldMax Short N100 Option Income Strategy ETF                        | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, inverse_context   | 2025-11-08T1 0:42:22-06:00 |
| 600 | YXI    | ProShares Short FTSE China 50   | ETF      | leveraged_single_stock_inverse | etf_flag_Y, type_etf, inverse_context, single_stock_detected                            | 2025-11-08T1 0:42:22-06:00 |
| 601 | ZSL    | ProShares UltraShort Silver   | ETF      | leveraged_index_inverse        | etf_flag_Y, type_etf, brand_proshares_ultrashort_implies_minus2x, implied_multiplier_2x | 2025-11-08T1 0:42:22-06:00 |

## Source Code (Full Listing)

Note: lines are wrapped for readability.

### src/constants.py

```
import re

# Source URL for nasdaqtraded.txt
NASDAQ_TRADED_URL = "https://www.nasdaqtrader.com/dynamic/SymDir/nasdaqtraded.txt"

# Core regex snippets (compiled once)
LEVERAGE_NUM = re.compile(r"\b(?:1\.\d|2|3|4)x\b", re.IGNORECASE)
INVERSE = re.compile(r"\b(?:-1x|-2x|inverse|short|bear)\b", re.IGNORECASE)
BRAND_CTX = re.compile(r"(?:ultrapro\b|bproshares\s+ultra\b|\bdirection\s+daily\b)", re.IGNORECASE)
BULL_BEAR = re.compile(r"\b(?:bull|bear)\b", re.IGNORECASE)

# Expanded duration/credit/cash exclusions to prevent false inverse triggers
EXCL_SHORT_DURATION = re.compile(
    r"\b(?:ultra\s+short|short[-\s]?)"
    r"(?:term|duration|maturit(?:y|ies)|treasury|t-?bill|muni|municipal|"
    r"government|gov(?:t)?|corp(?:orate)?|bond|fixed\s+income|income|cash|money\s+market)\b",
    re.IGNORECASE
)
COMMODITY =
re.compile(r"\b(gold|silver|platinum|palladium|oil|crude|brent|wti|natural\s+gas|nat\s+gas|vix|bitcoin|btc|ether|ethereum|copper)\b",
re.IGNORECASE)
FUTURES = re.compile(r"\bfutures?\b|\bfront-?month\b|\bfutures?\s+strategy\b|\bstategy\b", re.IGNORECASE)
TRUST = re.compile(r"\btrust\b", re.IGNORECASE)
EXCL_GOLDMAN = re.compile(r"\bgold(?!\man)\b", re.IGNORECASE)
ETN = re.compile(r"\betns?\b|\bexchange-?traded\s+notes?\b|\bnotes?\s+due\b", re.IGNORECASE)
ETF_WORD = re.compile(r"\betf(s)?\b", re.IGNORECASE)

# Brand-only leverage inference
ULTRAPRO = re.compile(r"\bultrapro\b", re.IGNORECASE) # implies 3x family
PRO_ULTRA = re.compile(r"\bproshares\s+ultra\b", re.IGNORECASE) # implies 2x long unless inverse tokens present
PRO_ULTRASHORT = re.compile(r"\bproshares\s+ultrashort\b", re.IGNORECASE) # implies -2x inverse

# Single-stock cues
SINGLE_STOCK_PATTERNS = [
    re.compile(r"\bdaily\s+([A-Z]{1,5})\s+(bull|bear)\b", re.IGNORECASE),
    re.compile(r"\b(?:long|short)\s+([A-Z]{1,5})\b", re.IGNORECASE),
    re.compile(r"\b([A-Z]{1,5})\b\s+(:bull|bear)\s+(:1x|2x|3x|-1x|-2x)\b", re.IGNORECASE),
    re.compile(r"\b([A-Z]{1,5})\b\s*(?:bull|bear)", re.IGNORECASE),
]
EXPECTED_COLUMNS = [
    "Nasdaq Traded", "Symbol", "Security Name", "Listing Exchange", "Market Category",
    "ETF", "Round Lot Size", "Test Issue", "Financial Status", "CQS Symbol",
    "NASDAQ Symbol", "NextShares"
]
```

### src/detectors.py

```

from __future__ import annotations
from typing import Dict, List, Tuple, Optional
import re
from . import constants as C

def _norm(s: str) -> str:
    return re.sub(r"\s+", " ", s or "").strip()

def _lower(s: str) -> str:
    return _norm(s).lower()

def _has(pattern: re.Pattern, text: str) -> bool:
    return bool(pattern.search(text))

def _single_stock_hint(name: str) -> bool:
    for pat in C.SINGLE_STOCK_PATTERNS:
        if pat.search(name):
            return True
    return False

def _is_inverse_context(name: str) -> bool:
    # Treat inverse only when not a duration/cash context
    if C.INVERSE.search(name):
        if C.EXCL_SHORT_DURATION.search(name):
            # Allow if explicit -1x/-2x or 'bear' appears outside duration context
            if re.search(r"\b(?:-1x|-2x|bear)\b", name, re.IGNORECASE):
                return True
            return False
        return True
    return False

def _is_leverage_context(name: str) -> bool:
    if C.LEVERAGE_NUM.search(name):
        return True
    # 'Ultra' alone is not sufficient; require brand + bull/bear or numeric x
    if C.BRAND_CTX.search(name) and (C.BULL_BEAR.search(name) or C.LEVERAGE_NUM.search(name)):
        return True
    return False

def _brand_implies_leverage(name: str) -> Tuple[bool, Optional[int], bool, List[str]]:
    """Return (hit, implied_mult, inverse_flag, reasons)."""
    reasons: List[str] = []
    implied_mult = None
    inverse = False
    hit = False

    if C.ULTRAPRO.search(name):
        hit = True
        implied_mult = 3
        reasons.append("brand_ultrapro_implies_3x")
    if C.PRO_ULTRA.search(name):
        hit = True
        implied_mult = 2
        reasons.append("brand_proshares_ultra_implies_2x")
    if C.PRO_ULTRASHORT.search(name):
        hit = True
        implied_mult = 2
        inverse = True
        reasons.append("brand_proshares_ultrashort_implies_minus2x")

    # If any brand hit, check for inverse tokens unless already set
    if hit and not inverse:

```

```

if re.search(r"\b(inverse|ultra)s*short|short|bear)\b", name, re.IGNORECASE) and not
C.EXCL_SHORT_DURATION.search(name):
    inverse = True
    reasons.append("inverse_keyword_under_brand")

return hit, implied_mult, inverse, reasons

def _commodity_hit(name: str) -> bool:
    if "goldman" in name:
        return bool(re.search(r"\bgold(?!man)\b", name, re.IGNORECASE)) or bool(C.COMMODITY.search(name))
    return bool(C.COMMODITY.search(name))

def detect(name: str, row: Dict[str, str]) -> Tuple[bool, Optional[str], List[str], Optional[str]]:
    """
    Returns: (matched, category, reasons, etp_type)
    """
    reasons: List[str] = []
    raw_name = name
    name = _lower(name)

    # Global pre-filters
    etp_flag = (row.get("ETF", "") .upper() == "Y")
    if etp_flag:
        reasons.append("etf_flag_Y")
    has_trust = _has(C.TRUST, name)
    has_etn = _has(C.ETN, name)
    has_etf_word = _has(C.ETF_WORD, name)

    plausible_etp = etp_flag or has_trust or has_etn or has_etf_word
    if not plausible_etp:
        return (False, None, [], None)

    # Determine etp_type
    etp_type = None
    if has_etn:
        etp_type = "ETN"
        reasons.append("type_etn_by_name")
    elif has_trust and _commodity_hit(name):
        etp_type = "Trust"
        reasons.append("type_trust_with_commodity")
    elif etp_flag or has_etf_word:
        etp_type = "ETF"
        reasons.append("type_etf")

    # Brand-only leverage inference first (to catch UltraPro/Ultra/UltraShort families)
    brand_hit, implied_mult, brand_inverse, brand_reasons = _brand_implies_leverage(name)
    if brand_hit:
        reasons.extend(brand_reasons)
        is_inverse = brand_inverse or _is_inverse_context(name)
        # Decide single-stock vs index by heuristic
        if _single_stock_hint(raw_name):
            cat = "leveraged_single_stock_inverse" if is_inverse else "leveraged_single_stock_long"
        else:
            cat = "leveraged_index_inverse" if is_inverse else "leveraged_index_long"
        reasons.append(f"implied_multiplier_{implied_mult}x" if implied_mult else
                    "implied_multiplier_unknown")
        return (True, cat, reasons, etp_type or "ETF")

    # Category 1: Leverage/Inverse via explicit tokens
    is_leverage = _is_leverage_context(name)
    is_inverse = _is_inverse_context(name)
    if is_leverage or is_inverse:

```

```

if _single_stock_hint(raw_name):
    cat = "leveraged_single_stock_inverse" if is_inverse else "leveraged_single_stock_long"
    if is_leverage: reasons.append("leverage_context")
    if is_inverse: reasons.append("inverse_context")
    reasons.append("single_stock_detected")
    return (True, cat, reasons, etp_type or "ETF")
else:
    cat = "leveraged_index_inverse" if is_inverse else "leveraged_index_long"
    if is_leverage: reasons.append("leverage_context")
    if is_inverse: reasons.append("inverse_context")
    return (True, cat, reasons, etp_type or "ETF")

# Category 2: Futures-based commodity/crypto
if _commodity_hit(name) and _has(C.FUTURES, name):
    if re.search(r"\b(bitcoin|btc|ether|ethereum)\b", name, re.IGNORECASE):
        cat = "crypto_futures"
    else:
        cat = "commodity_futures"
    reasons.append("futures_keyword")
    return (True, cat, reasons, etp_type or ("ETN" if has_etn else "ETF"))

# Category 3: Physically-backed commodity/crypto trusts/ETFs
if has_trust and _commodity_hit(name):
    if re.search(r"\b(physical(ly)?|bullion|bars?)\b", name, re.IGNORECASE):
        reasons.append("physical_keyword")
    if re.search(r"\b(bitcoin|btc|ether|ethereum)\b", name, re.IGNORECASE):
        cat = "crypto_trust"
    else:
        cat = "commodity_physical_trust"
    return (True, cat, reasons, etp_type or "Trust")

# Also allow physically-backed ETFs (non-trust) with explicit physical/bullion wording
if _commodity_hit(name) and re.search(r"\b(physical(ly)?|bullion|bars?)\b", name, re.IGNORECASE):
    reasons.append("physical_keyword")
    if re.search(r"\b(bitcoin|btc|ether|ethereum)\b", name, re.IGNORECASE):
        cat = "crypto_trust"
    else:
        cat = "commodity_physical_trust"
    return (True, cat, reasons, etp_type or "ETF")

return (False, None, [], etp_type)

```

## src/io\_utils.py

```

from __future__ import annotations
import csv, io, requests, datetime, os, json
from typing import List, Dict, Iterable
from dateutil import tz

from .constants import NASDAQ_TRADED_URL, EXPECTED_COLUMNS

def fetch_nasdaq_traded(
    url: str = NASDAQ_TRADED_URL,
    timeout: int = 30,
    outdir: str = "outputs",
    date_dir: str | None = None,    # <- NEW: folder name like "YYYY-MM-DD"
) -> List[Dict[str, str]]:
    """Download nasdaqtraded.txt, save a raw snapshot in outdir/date_dir, and return parsed rows."""
    r = requests.get(url, timeout=timeout)
    r.raise_for_status()

```

```

# Decide which date folder to use for the raw snapshot
if date_dir is None:
    # Default to Chicago date to match the rest of the outputs
    chi = tz.gettz("America/Chicago")
    date_dir = datetime.datetime.now(chi).date().isoformat()

raw_dir = os.path.join(outdir or "outputs", date_dir)
os.makedirs(raw_dir, exist_ok=True)
raw_path = os.path.join(raw_dir, "nasdaqtraded_raw.txt")
with open(raw_path, "w", encoding="utf-8") as rf:
    rf.write(r.text)

# Parse the file
content = r.text.splitlines()
header = content[0].split(' | ')
if header[0].strip() not in ("Nasdaq Traded", "Nasdaq Traded\xef\xbb\xbf"):
    for i, line in enumerate(content):
        parts = line.split(' | ')
        if len(parts) >= 5 and parts[0].strip() in ("Nasdaq Traded", "Nasdaq Traded\xef\xbb\xbf"):
            header = parts
            content = content[i:]
            break

rows: List[Dict[str, str]] = []
for line in content[1:]:
    if line.startswith("File Creation Time"):
        break
    parts = line.split(' | ')
    if len(parts) < len(header):
        parts += [""] * (len(header) - len(parts))
    row = {header[i].strip(): parts[i].strip() if i < len(parts) else "" for i in range(len(header))}
    rows.append(row)
return rows

def chicago_timestamp() -> str:
    tz_chi = tz.gettz("America/Chicago")
    return datetime.datetime.now(tz_chi).replace(microsecond=0).isoformat()

def ensure_dir(path: str) -> None:
    os.makedirs(path, exist_ok=True)

def write_csv(path: str, records: List[Dict[str, str]], fieldnames: List[str]) -> None:
    ensure_dir(os.path.dirname(path))
    with open(path, "w", newline="", encoding="utf-8") as f:
        w = csv.DictWriter(f, fieldnames=fieldnames)
        w.writeheader()
        for rec in records:
            w.writerow(rec)

def write_jsonl(path: str, records: List[Dict[str, str]]) -> None:
    ensure_dir(os.path.dirname(path))
    with open(path, "w", encoding="utf-8") as f:
        for rec in records:
            f.write(json.dumps(rec, ensure_ascii=False) + "\n")

```

## ***src/pdf\_report.py***

```

from __future__ import annotations
from typing import List, Dict

```

```

import os, textwrap
from reportlab.lib.pagesizes import LETTER, landscape
from reportlab.lib import colors
from reportlab.lib.styles import getSampleStyleSheet, ParagraphStyle
from reportlab.platypus import SimpleDocTemplate, Paragraph, Spacer, LongTable, Table, TableStyle, PageBreak,
XPreformatted
from reportlab.lib.units import inch

MONO = "Courier"

def _header_footer(canvas, doc):
    canvas.saveState()
    w, h = landscape(LETTER)
    canvas.setFont("Helvetica", 8)
    canvas.drawString(0.6 * inch, 0.4 * inch, "FIN556 ETP Scanner - Generated Report")
    canvas.drawRightString(w - 0.6 * inch, 0.4 * inch, f"Page {doc.page}")
    canvas.restoreState()

def _section_title(text: str):
    return Paragraph(f"{text}", getSampleStyleSheet()["Heading2"])

def _h3(text: str):
    return Paragraph(f"{text}", getSampleStyleSheet()["Heading3"])

def build_assignment_pdf(
    out_pdf_path: str,
    netid: str,
    records: List[Dict[str, str]],
    code_paths: List[str],
    run_meta: Dict[str, str],
):
    # Single, consistent page size across the whole document
    PAGE_SIZE = landscape(LETTER)
    doc = SimpleDocTemplate(
        out_pdf_path,
        pagesize=PAGE_SIZE,
        leftMargin=36, rightMargin=36, topMargin=48, bottomMargin=42
    )

    styles = getSampleStyleSheet()
    styles.add(ParagraphStyle(name="Mono", fontName=MONO, fontSize=7.2, leading=8.2, wordWrap="CJK"))
    styles.add(ParagraphStyle(name="Small", fontSize=9, leading=11))
    styles.add(ParagraphStyle(name="Wrap", fontSize=7.6, leading=8.8, wordWrap="CJK"))
    styles.add(ParagraphStyle(name="WrapMono", fontName=MONO, fontSize=7.2, leading=8.2, wordWrap="CJK"))

    story = []
    story.append(Paragraph(f"{netid}_fin556_algo_trading_symbols_homework", styles["Title"]))
    story.append(Spacer(1, 4))
    story.append(Paragraph("Automated NASDAQ ETP Scanner - Output and Source Code | GitHub:  
https://github.com/xecuterisaquant/fin556-etp-finder", styles["Italic"]))
    story.append(Spacer(1, 10))

    # Summary
    story.append(_section_title("Summary"))
    story.append(Paragraph(f"Total matches: {len(records)}", styles["BodyText"]))
    story.append(Spacer(1, 6))

    # Category counts
    cats = {}
    for r in records:
        cats[r.get("category", "unknown")] = cats.get(r.get("category", "unknown"), 0) + 1
    if cats:

```

```

summary_rows = [["Category", "Count"]] + [[k, v] for k, v in sorted(cats.items(), key=lambda x: (-x[1], x[0]))]
t = Table(summary_rows, colWidths=[4.0*inch, 1.0*inch])
t.setStyle(TableStyle([
    ("BACKGROUND", (0,0), (-1,0), colors.HexColor("#f1f3f5")),
    ("GRID", (0,0), (-1,-1), 0.25, colors.HexColor("#ced4da")),
    ("FONTNAME", (0,0), (-1,0), "Helvetica-Bold"),
    ("ALIGN", (1,1), (-1,-1), "RIGHT"),
    ("FONTSIZE", (0,0), (-1,-1), 9),
    ("VALIGN", (0,0), (-1,-1), "MIDDLE"),
]))
story.append(t)

# Run metadata
story.append(Spacer(1, 10))
story.append(_section_title("Run metadata"))
meta_lines = [f"{k}: {v}" for k, v in run_meta.items()]
story.append(XPreformatted("\n".join(meta_lines), styles["Mono"]))
story.append(Spacer(1, 8))

# Detected symbols table (ALL columns wrapped; includes serial #)
story.append(_section_title("Detected Symbols (Full List)"))
header = ["#", "symbol", "name", "etp_type", "category", "reasons", "timestamp"]
table_data = [header]

for i, r in enumerate(records, start=1):
    idx = Paragraph(str(i), styles["Wrap"])
    symbol = Paragraph(str(r.get("symbol", "")), styles["Wrap"])
    name = Paragraph(str(r.get("name", "")), styles["Wrap"])
    etp_type = Paragraph(str(r.get("etp_type", "")), styles["Wrap"])
    category = Paragraph(str(r.get("category", "")), styles["Wrap"])
    reasons = r.get("reasons", [])
    if isinstance(reasons, list):
        reasons_txt = ", ".join(reasons)
    else:
        reasons_txt = str(reasons)
    reasons_para = Paragraph(reasons_txt, styles["Wrap"])
    timestamp = Paragraph(str(r.get("timestamp", "")), styles["Wrap"])
    table_data.append([idx, symbol, name, etp_type, category, reasons_para, timestamp])

# === FIT TABLE TO PAGE WIDTH (no overflow) ===
# Use exact fractions of doc.width so the table ALWAYS fits within margins.
# Fractions sum to 1.0 → widths sum to doc.width (~ 10 inches on landscape Letter with 0.5" margins).
fractions = [
    0.03,  # #
    0.09,  # symbol
    0.30,  # name
    0.08,  # etp_type
    0.14,  # category
    0.28,  # reasons
    0.08,  # timestamp
]
avail = doc.width  # width between margins
col_widths = [avail * f for f in fractions]

lt = LongTable(table_data, colWidths=col_widths, repeatRows=1, splitByRow=1)
lt.setStyle(TableStyle([
    ("BACKGROUND", (0,0), (-1,0), colors.HexColor("#f1f3f5")),
    ("GRID", (0,0), (-1,-1), 0.25, colors.HexColor("#ced4da")),
    ("FONTNAME", (0,0), (-1,0), "Helvetica-Bold"),
    ("FONTSIZE", (0,0), (-1,-1), 7.6),
    ("VALIGN", (0,0), (-1,-1), "TOP"),
]))

```

```

        ("LEFTPADDING", (0,0), (-1,-1), 3),
        ("RIGHTPADDING", (0,0), (-1,-1), 3),
        ("TOPPADDING", (0,0), (-1,-1), 1.5),
        ("BOTTOMPADDING", (0,0), (-1,-1), 1.5),
    ))
story.append(lt)

# Code listing
story.append(PageBreak())
story.append(_section_title("Source Code (Full Listing)"))
story.append(Paragraph("Note: lines are wrapped for readability.", styles["Small"]))
story.append(Spacer(1, 6))

wrap_width = 110 # soft wrap for code blocks on landscape pages
for p in code_paths:
    story.append(_h3(os.path.relpath(p)))
    with open(p, "r", encoding="utf-8") as f:
        code = f.read()
        wrapped_lines = []
        for line in code.splitlines():
            if len(line) <= wrap_width:
                wrapped_lines.append(line)
            else:
                indent = len(line) - len(line.lstrip(" "))
                prefix = " " * indent
                chunks = textwrap.wrap(
                    line.rstrip("\n"),
                    width=wrap_width,
                    subsequent_indent=prefix,
                    break_long_words=False,
                    break_on_hyphens=False
                )
                wrapped_lines.extend(chunks)
        wrapped_code = "\n".join(wrapped_lines)
    story.append(XPreformatted(wrapped_code, styles["Mono"]))
    story.append(Spacer(1, 8))

doc.build(story, onFirstPage=_header_footer, onLaterPages=_header_footer)

```

## **src/main.py**

```

from __future__ import annotations
import argparse, os, sys, json
from typing import List, Dict

from .io_utils import fetch_nasdaq_traded, chicago_timestamp, write_csv, write_jsonl
from .detectors import detect
from . import constants as C
from .pdf_report import build_assignment_pdf

ASSIGNMENT_DEFAULT_URL = C.NASDAQ_TRADED_URL

def parse_args():
    ap = argparse.ArgumentParser(description="ETP scanner for NASDAQ nasdaqtraded.txt")
    ap.add_argument("--source-url", default=ASSIGNMENT_DEFAULT_URL, help="URL to nasdaqtraded.txt")
    ap.add_argument("--outdir", default="outputs", help="Base output directory")
    ap.add_argument("--netid", default="", help="Your NETID (used to name the assignment PDF)")
    ap.add_argument("--make-assignment-pdf", action="store_true", help="Build the single PDF containing code + output")
    return ap.parse_args()

```

```

def run(source_url: str, outdir: str, netid: str, make_pdf: bool):
    # Chicago-local timestamp and date folder (shared across ALL artifacts)
    ts = chicago_timestamp()
    date_dir = ts[:10]  # "YYYY-MM-DD"

    # Fetch data; also saves the raw snapshot under outdir/date_dir/
    rows = fetch_nasdaq_traded(source_url, outdir=outdir, date_dir=date_dir)

    # Columns to emit
    fields = ["symbol", "name", "etp_type", "category", "reasons", "timestamp"]
    records: List[Dict[str, str]] = []

    for row in rows:
        # Skip test issues
        if row.get("Test Issue", "").upper() != "N":
            continue
        name = row.get("Security Name", "")
        matched, category, reasons, etp_type = detect(name, row)
        if not matched:
            continue
        rec = {
            "symbol": row.get("Symbol", ""),
            "name": name,
            "etp_type": etp_type or "",
            "category": category or "",
            "reasons": reasons,
            "timestamp": ts,
        }
        records.append(rec)

    # Write CSV/JSONL into the SAME date folder used for the raw file
    base_dir = os.path.join(outdir, date_dir)
    csv_path = os.path.join(base_dir, "etp_candidates.csv")
    jsonl_path = os.path.join(base_dir, "etp_candidates.jsonl")
    write_csv(csv_path, records, fields)
    write_jsonl(jsonl_path, records)

    # Build the single assignment PDF if requested
    pdf_path = None
    if make_pdf:
        if not netid:
            print("ERROR: --netid is required when --make-assignment-pdf is used", file=sys.stderr)
            sys.exit(2)
        pdf_name = f"{netid.lower()}_fin556_algo_trading_symbols_homework.pdf"
        pdf_path = os.path.join(outdir, pdf_name)
        # Collect code paths to embed
        code_paths = []
        here = os.path.dirname(__file__)
        for rel in ["constants.py", "detectors.py", "io_utils.py", "pdf_report.py", "main.py"]:
            code_paths.append(os.path.join(here, rel))
        # add workflow for completeness if present
        wf = os.path.join(os.path.dirname(here), ".github", "workflows", "daily.yml")
        if os.path.exists(wf):
            code_paths.append(wf)
        run_meta = {
            "source_url": source_url,
            "timestamp_chicago": ts,
            "records_count": str(len(records)),
            "output_csv": os.path.relpath(csv_path),
            "output_jsonl": os.path.relpath(jsonl_path),
            "date_dir": date_dir,
        }

```

```

    }
    build_assignment_pdf(pdf_path, netid=netid, records=records, code_paths=code_paths, run_meta=run_meta)

# Summary to stdout (useful in Actions logs)
print(json.dumps({
    "count": len(records),
    "csv": csv_path,
    "jsonl": jsonl_path,
    "pdf": pdf_path,
    "date_dir": date_dir
}, indent=2))

if __name__ == "__main__":
    args = parse_args()
    run(args.source_url, args.outdir, args.netid, args.make_assignment_pdf)

```

## .github/workflows/daily.yml

```

name: Daily ETP Scan

on:
  schedule:
    - cron: "30 15 * * *" # 10:30 AM CDT
    - cron: "30 16 * * *" # 10:30 AM CST
  workflow_dispatch:

permissions:
  contents: write

jobs:
  run:
    runs-on: ubuntu-latest
    steps:
      - name: Check out
        uses: actions/checkout@v4

      - name: Ensure it's 10:30 in Chicago
        id: gate
        run: |
          sudo apt-get update && sudo apt-get install -y tzdata
          export TZ=America/Chicago
          NOW=$(date +"%H:%M")
          if [ "$NOW" != "10:30" ]; then
            echo "Not 10:30 Chicago time ($NOW). Exiting."
            exit 0
          fi

      - name: Set up Python
        uses: actions/setup-python@v5
        with:
          python-version: "3.11"

      - name: Install deps
        run: |
          python -m pip install --upgrade pip
          pip install -r requirements.txt

      - name: Run scanner
        run: |
          python -m src.main --outdir outputs --netid harsh6 --make-assignment-pdf

```

```
- name: Commit results if changed
  run: |
    git config user.name "github-actions"
    git config user.email "actions@users.noreply.github.com"
    git add outputs
    git diff --staged --quiet || git commit -m "Daily scan: $(date -u +'%Y-%m-%d')"
    git push
```