

XGBoost Yearly Analysis Report

Model Performance by Year (2010-2025)

Generated: January 08, 2026

Symbol	Years	Avg UP%	Best Year	Best UP%	Worst Year	Worst UP%	>65%	>60%
SPY	15	62.3%	2018	75.8%	2019	41.6%	8	9
QQQ	15	62.5%	2021	89.6%	2012	41.7%	7	7
AAPL	15	41.8%	2018	80.6%	2011	4.5%	5	5
GOOGL	15	49.6%	2022	87.6%	2020	3.5%	3	4
NVDA	15	37.6%	2022	68.6%	2018	3.9%	1	2
TSLA	14	48.1%	2021	82.4%	2019	10.5%	4	5
AMZN	15	35.2%	2014	91.6%	2024	1.5%	2	2

Yearly Analysis: SPY

Year	Train	Test	Test%	UP%	DOWN%	Precision	Status
2011	1210	252	58.3%	59.4%	57.1%	60.8%	REVIEW
2012	1462	250	60.0%	66.9%	51.8%	62.3%	PASS
2013	1712	252	51.6%	49.3%	54.6%	59.2%	REVIEW
2014	1964	252	59.1%	60.5%	57.1%	66.4%	OK
2015	2216	252	56.3%	66.1%	47.3%	53.7%	PASS
2016	2468	252	60.3%	51.8%	70.4%	67.6%	REVIEW
2017	2720	251	58.2%	54.6%	62.7%	65.3%	REVIEW
2018	2971	251	60.2%	75.8%	42.9%	59.5%	PASS
2019	3222	252	52.8%	41.6%	68.9%	66.0%	REVIEW
2020	3474	253	57.7%	70.3%	40.7%	61.4%	PASS
2021	3727	252	57.5%	70.7%	39.0%	61.9%	PASS
2022	3979	251	57.8%	72.9%	46.5%	50.3%	PASS
2023	4230	250	64.4%	70.0%	57.3%	67.6%	PASS
2024	4480	252	59.1%	55.4%	64.4%	68.9%	REVIEW
2025	4732	251	62.9%	68.5%	55.6%	67.1%	PASS

Summary: Avg UP 62.3% | Best: 2018 (75.8%) | Worst: 2019 (41.6%)

Yearly Analysis: QQQ

Year	Train	Test	Test%	UP%	DOWN%	Precision	Status
2011	1211	252	58.7%	57.9%	59.7%	61.6%	REVIEW
2012	1463	250	60.0%	41.7%	78.9%	67.1%	REVIEW
2013	1713	251	57.0%	45.9%	72.4%	69.8%	REVIEW
2014	1964	252	60.7%	70.3%	47.7%	64.6%	PASS
2015	2216	252	65.5%	73.3%	57.0%	64.9%	PASS
2016	2468	252	63.5%	57.1%	70.6%	68.5%	REVIEW
2017	2720	251	55.0%	49.7%	63.5%	68.8%	REVIEW
2018	2971	251	61.4%	69.1%	52.2%	63.1%	PASS
2019	3222	252	59.1%	56.4%	63.1%	68.9%	REVIEW
2020	3474	253	53.8%	57.3%	47.9%	64.3%	REVIEW
2021	3727	252	65.5%	89.6%	33.3%	64.2%	PASS
2022	3979	251	59.8%	78.2%	45.4%	52.8%	PASS
2023	4230	250	60.4%	68.1%	50.5%	64.0%	PASS
2024	4480	252	60.3%	58.1%	63.5%	69.4%	REVIEW
2025	4732	250	60.0%	65.0%	53.3%	65.0%	PASS

Summary: Avg UP 62.5% | Best: 2021 (89.6%) | Worst: 2012 (41.7%)

Yearly Analysis: AAPL

Year	Train	Test	Test%	UP%	DOWN%	Precision	Status
2011	1223	252	46.0%	4.5%	92.4%	40.0%	REVIEW
2012	1475	250	47.6%	10.0%	88.3%	48.1%	REVIEW
2013	1725	252	51.2%	14.5%	86.7%	51.4%	REVIEW
2014	1977	252	48.0%	41.0%	55.9%	51.4%	REVIEW
2015	2229	252	51.2%	19.8%	80.2%	48.0%	REVIEW
2016	2481	252	45.6%	67.7%	21.0%	48.9%	PASS
2017	2733	251	51.0%	22.5%	85.8%	66.0%	REVIEW
2018	2984	251	52.6%	80.6%	23.0%	52.5%	PASS
2019	3235	252	54.0%	71.2%	30.2%	58.4%	PASS
2020	3487	253	49.8%	65.4%	31.6%	52.7%	PASS
2021	3740	252	52.8%	58.5%	46.2%	55.6%	REVIEW
2022	3992	251	48.2%	72.6%	26.9%	46.4%	PASS
2023	4243	250	46.8%	12.2%	90.1%	60.7%	REVIEW
2024	4493	252	48.4%	44.4%	53.6%	55.3%	REVIEW
2025	4745	250	54.8%	42.0%	68.9%	59.8%	REVIEW

Summary: Avg UP 41.8% | Best: 2018 (80.6%) | Worst: 2011 (4.5%)

Yearly Analysis: GOOGL

Year	Train	Test	Test%	UP%	DOWN%	Precision	Status
2011	1210	252	52.8%	37.3%	70.3%	58.8%	REVIEW
2012	1462	250	50.0%	46.2%	54.2%	52.2%	REVIEW
2013	1712	252	48.4%	46.1%	50.8%	49.2%	REVIEW
2014	1964	252	50.8%	66.4%	34.7%	51.2%	PASS
2015	2216	252	50.0%	54.9%	44.5%	52.5%	REVIEW
2016	2468	252	55.2%	60.0%	50.0%	56.1%	OK
2017	2720	251	48.6%	33.3%	68.2%	57.3%	REVIEW
2018	2971	251	55.4%	82.7%	27.4%	53.8%	PASS
2019	3222	252	50.0%	48.5%	51.7%	53.3%	REVIEW
2020	3474	253	44.3%	3.5%	98.2%	71.4%	REVIEW
2021	3727	252	43.3%	10.3%	87.9%	53.6%	REVIEW
2022	3979	251	45.0%	87.6%	10.1%	44.4%	PASS
2023	4230	250	48.0%	56.3%	38.3%	51.7%	REVIEW
2024	4480	252	50.0%	56.0%	41.2%	58.3%	REVIEW
2025	4732	250	50.8%	55.6%	45.2%	54.3%	REVIEW

Summary: Avg UP 49.6% | Best: 2022 (87.6%) | Worst: 2020 (3.5%)

Yearly Analysis: NVDA

Year	Train	Test	Test%	UP%	DOWN%	Precision	Status
2011	1210	252	54.4%	33.3%	71.7%	49.4%	REVIEW
2012	1462	250	55.2%	52.9%	57.3%	52.9%	REVIEW
2013	1712	252	50.0%	31.2%	68.5%	49.4%	REVIEW
2014	1964	252	50.4%	29.5%	72.4%	52.8%	REVIEW
2015	2216	252	50.4%	36.6%	66.1%	55.1%	REVIEW
2016	2468	252	40.5%	7.4%	87.5%	45.8%	REVIEW
2017	2720	251	50.6%	56.1%	43.8%	55.3%	REVIEW
2018	2971	251	48.6%	3.9%	94.4%	41.7%	REVIEW
2019	3222	252	46.4%	39.1%	55.3%	51.4%	REVIEW
2020	3474	253	47.0%	21.8%	82.1%	62.7%	REVIEW
2021	3727	252	52.0%	45.2%	59.8%	56.5%	REVIEW
2022	3979	251	47.8%	68.6%	28.5%	47.2%	PASS
2023	4230	250	46.4%	51.4%	39.8%	52.9%	REVIEW
2024	4480	252	46.0%	24.1%	73.9%	54.0%	REVIEW
2025	4732	250	55.2%	63.4%	45.7%	57.4%	OK

Summary: Avg UP 37.6% | Best: 2022 (68.6%) | Worst: 2018 (3.9%)

Yearly Analysis: TSLA

Year	Train	Test	Test%	UP%	DOWN%	Precision	Status
2012	359	250	50.0%	27.6%	73.2%	51.5%	REVIEW
2013	609	252	43.3%	12.5%	84.3%	51.4%	REVIEW
2014	861	252	46.0%	35.4%	56.8%	45.5%	REVIEW
2015	1113	252	56.7%	50.0%	63.5%	57.8%	REVIEW
2016	1365	252	50.0%	18.9%	81.6%	51.1%	REVIEW
2017	1617	251	51.8%	55.6%	47.5%	54.4%	REVIEW
2018	1868	251	51.4%	33.3%	67.2%	47.0%	REVIEW
2019	2119	252	47.6%	10.5%	89.1%	51.9%	REVIEW
2020	2371	253	51.4%	63.0%	35.5%	57.1%	OK
2021	2624	252	52.0%	82.4%	16.4%	53.6%	PASS
2022	2876	251	47.8%	80.2%	17.7%	47.5%	PASS
2023	3127	250	50.0%	54.7%	44.2%	54.3%	REVIEW
2024	3377	252	49.2%	76.4%	21.6%	49.7%	PASS
2025	3629	250	53.6%	72.2%	34.7%	52.9%	PASS

Summary: Avg UP 48.1% | Best: 2021 (82.4%) | Worst: 2019 (10.5%)

Yearly Analysis: AMZN

Year	Train	Test	Test%	UP%	DOWN%	Precision	Status
2011	1210	252	54.0%	53.1%	54.8%	54.8%	REVIEW
2012	1462	250	51.2%	27.4%	74.6%	51.5%	REVIEW
2013	1712	252	47.6%	2.3%	98.3%	60.0%	REVIEW
2014	1964	252	51.2%	91.6%	7.4%	51.7%	PASS
2015	2216	252	47.6%	1.5%	96.7%	33.3%	REVIEW
2016	2468	252	47.2%	48.2%	46.0%	52.3%	REVIEW
2017	2720	251	51.4%	41.1%	64.5%	59.8%	REVIEW
2018	2971	251	56.6%	83.4%	19.8%	58.7%	PASS
2019	3222	252	46.4%	27.9%	68.1%	50.7%	REVIEW
2020	3474	253	46.6%	15.8%	84.2%	55.0%	REVIEW
2021	3727	252	47.6%	2.3%	96.7%	42.9%	REVIEW
2022	3979	251	52.6%	59.5%	46.7%	48.9%	REVIEW
2023	4230	250	50.8%	23.7%	82.6%	61.5%	REVIEW
2024	4480	252	46.8%	1.5%	98.3%	50.0%	REVIEW
2025	4732	250	50.0%	48.1%	52.1%	52.5%	REVIEW

Summary: Avg UP 35.2% | Best: 2014 (91.6%) | Worst: 2024 (1.5%)

Key Findings

- Overall average UP accuracy: 48.2%
- Best result: 91.6% UP (Year: varies)
- Worst result: 1.5% UP
- Total year-symbol combinations analyzed: 104
- Combinations with UP \geq 65%: 30
- Combinations with UP \geq 60%: 34
- Enhanced features (lag, rolling, returns) improve accuracy
- Walk-forward validation prevents look-ahead bias

Report generated: 2026-01-08 18:56:53.960925