Correlation Matrix of SP500 Features 1.0000 0.1965 -0.3578 0.3934 0.4917 0.2698 0.1019 -0.3332 -0.1100 relative\_humidity -0.1973 -0.0881 precipitation (mm) -0.1965 1.0000 0.2497 0.3767 0.2573 0.0767 0.0736 pressure\_msl (hPa) --0.3578 -0.5792 -0.4693 -0.4727 -0.5460 -0.4515 1.0000 -0.0856 0.0282 cloud\_cover\_low (%) --0.5792 1.0000 0.5220 -0.0573 0.2497 0.4975 0.5851 0.2636 -0.0494 cloud\_cover\_mid (%) -0.3934 0.3767 -0.4693 0.4975 0.3625 0.1516 0.0848 -0.0587 1.0000 0.4843 -0.4727 cloud\_cover\_high (%) -0.4917 0.2573 0.5851 0.4843 1.0000 0.3714 0.1468 -0.0191 -0.0616 -0.5460 wind\_speed\_10m (km/h) -0.2698 0.1973 0.5220 0.3625 0.3714 1.0000 0.2554 0.1766 -0.0802 wind\_direction -0.1019 0.0767 -0.4515 0.2636 0.1516 0.1468 0.2554 1.0000 0.0527 -0.0614 -0.3332 -0.0856 -0.0573 -0.0191 0.1766 0.0527 0.0025 is\_Day -0.0736 0.0848 1.0000 temperature\_diff\_24h --0.1100 -0.0881 0.0282 -0.0494 -0.0587 -0.0616 -0.0802 -0.0614 0.0025 1.0000 is\_Day precipitation (mm) relative\_humidity cloud\_cover\_high (%) wind\_direction

