



AI-AUGMENTED SUPERHUMAN PERFORMANCE

# Introducing SigTech MAGIC

SigTech Multi-Agent Generative Investment Copilots (MAGIC), is a user-friendly platform that augments your performance by removing the barriers of analytics and coding. It gives you access to a team of AI experts in finance who are powered by state-of-the-art Large Language Models such as OpenAI GPT-4o and Anthropic Claude 3.5. They can autonomously write code, use tools and access datasets on your behalf. Set your goal in a natural language and they will collaborate to produce the expert solution.

## Current Roster of AI Agents

- QUANT STRATEGIST**  
Implements your investment strategies in Python and backtests the performance with tabular and graphical output
- ECONOMIST**  
Searches and analyzes macroeconomic indicator timeseries
- COPILOT**  
Retrieves the relevant documentation and code examples by SigTech to provide helpful tutorials on the fly
- INTERNET BROWSER**  
Searches, retrieves and understands web-based information efficiently
- BRING YOUR OWN AGENT**  
Create your own AI agent with access to your private data and tools to enhance your specific workflows

## User Experience

**STEP 1 – Set a goal:** You ask a question or set a goal for the AI team using a natural language

**STEP 2 – AI Teamwork:** MAGIC’s AI agents autonomously generate a plan to achieve your goal step by step. Each step is assigned to the right AI expert who analyzes data sets and uses tools to carry it out successfully. All actions by AI agents are recorded for your review

**STEP 3 – Results:** The output from each AI expert is collated and referenced to produce a coherent and logical solution that includes text, graphs and code, usually within minutes, if not seconds

# MAGIC Examples

### Diversifying Equity - Bond 60/40 Portfolio in High Correlation Scenarios

**UserName**  
We seek a macro environment that equity and bond markets are highly correlated. How can I diversify my 60/40 portfolio in this environment?

**SigTech MAGIC**  
Research Summary:  
Macro Environment's Effect on Equity and Bond Correlation  
During periods of Federal Reserve tightening, bonds and equities tend to move in the same direction.  
Current elevated inflation and monetary tightening have heightened the positive correlation between equities and bonds.

**Proposed Diversified Portfolio Structure:**

- 40% Equities
- 30% Bonds
- 10% Cash and Precious Metals
- 10% Real Estate
- 10% Commodities

**Script**  
Below are the allocation percentages for the diversified portfolio:  
`equity_allocation = 0.4  
bond_allocation = 0.3  
cash_allocation = 0.1  
real_estate_allocation = 0.1  
commodities_allocation = 0.1`

**Performance comparison**  
Line chart showing performance comparison between the diversified portfolio and the 60/40 portfolio over time.

Enter a prompt...

### Analyze US PMI Impact on S&P 500

**UserName**  
Analyze the US PMI data over the last 10 years, and highlight the period below 50. Show the S&P 500 index movement in each period in a table.

**SigTech MAGIC**  
This report provides a comprehensive analysis of the Purchasing Manager Index (PMI) data for the United States over the past ten years. The PMI is a critical economic indicator that reflects the health of the manufacturing sector, with a PMI value above 50 indicating expansion and below 50 indicating contraction.

**Key Objectives:**

- Chart and examine the US PMI trends over the last decade.
- Highlight periods where the PMI is below 50, marking economic contraction phases.
- Analyze the performance of the S&P 500 during periods of recession to understand the correlation between PMI values and stock market movements.

**Performance Metrics**

Period	Annualized Return	Annualized Volatility	Max Drawdown	Sharpe Ratio
Aug 2017C - Sep 2019C	-0.52%	10.92%	-2.84%	<0.01
Aug 2019C - Jan 2020C	9.37%	10.87%	-1.65%	1.43
Aug 2020C - Jun 2024	4.13%	10.58%	-5.27%	1.61

Enter a prompt...

### Enhanced Index Strategy on Nasdaq 100

**UserName**  
Create an enhanced index strategy on Nasdaq 100, and compare against the performance of the Nasdaq 100 index.

**SigTech MAGIC**  
This document outlines an enhanced strategy for the Nasdaq 100 (NDX) using the SigTech framework. By analyzing the momentum factor, the strategy seeks to outperform over 12 months within the index, equally weighted. Performance is first benchmarked against the Nasdaq 100 to assess its success in enhancing returns and managing risk.

**Performance Metrics**

Metric	Nasdaq 100 Index	Enhanced Nasdaq 100
Annualized Return	29.33%	31.77%
Annualized Volatility	15.69%	20.9%
Sharpe Ratio	1.73	1.57
Max Drawdown	-10.92%	-13.55%
Return over 20 days	3.42%	5.32%

**Performance comparison**  
Line chart comparing the performance of the enhanced strategy against the Nasdaq 100 index over time.

Enter a prompt...

### Impact of US Elections to the major US indices

**UserName**  
I want to understand the impact of US elections to the major US indices in the last 20 years, where should I start?

**SigTech MAGIC**  
Overview  
The presentation focused on analyzing the performance of major US stock indices—S&P 500 (SPY), Dow Jones (DJI), and Nasdaq (QQQ)—around the US presidential elections in the past 20 years. The analysis covered the election cycles from 2000 to 2020. The following insights were derived from historical data and correlation analysis:

**Summary of US Presidential Elections and Indices Performance:**

Year	Index	1 Month Return (%)	3 Month Return (%)	6 Month Return (%)	1 Year Return (%)
2000-04	S&P 500	+1%	-5%	-2%	+15%
	Dow Jones Industrial	+1%	-4%	-1%	+14%
	Nasdaq Composite	+1%	-4%	-1%	+13%
2004-08	S&P 500	+1%	-1%	-1%	+1%
	Dow Jones Industrial	+1%	-1%	-1%	+1%
	Nasdaq Composite	+1%	-1%	-1%	+1%
2008-12	S&P 500	+1%	-1%	-1%	+1%
	Dow Jones Industrial	+1%	-1%	-1%	+1%
	Nasdaq Composite	+1%	-1%	-1%	+1%
2012-01	S&P 500	+1%	-1%	-1%	+1%
	Dow Jones Industrial	+1%	-1%	-1%	+1%
	Nasdaq Composite	+1%	-1%	-1%	+1%
2016-01	S&P 500	+1%	-1%	-1%	+1%
	Dow Jones Industrial	+1%	-1%	-1%	+1%
	Nasdaq Composite	+1%	-1%	-1%	+1%
2020-01	S&P 500	+1%	-1%	-1%	+1%
	Dow Jones Industrial	+1%	-1%	-1%	+1%
	Nasdaq Composite	+1%	-1%	-1%	+1%

Enter a prompt...

## How does SigTech build an AI expert agent?

1. Tailors instructions to elicit and fine-tune specialist behaviors of LLMs for financial domains
2. Augments LLMs with access to timeseries data and calculations
3. Injects SigTech proprietary analytics for all major asset classes
4. Connects private data via RAG (Retrieval Augmented Generation)

SigTech MAGIC orchestrates multiple AI expert agents across finance domains.