GPT-Augmented Research for Quantitative Finance - Methodology

Traditional quant research is slow, fragmented, and fragile:

- ideas pass through multiple teams,
- iteration is expensive,
- leakage is often discovered too late.

Solution

A **GPT-augmented, human-governed research framework** that preserves professional rigor while radically accelerating iteration.

Methodology Overview

GPT Responsibilities

- Generate code scaffolding
- Propose model and strategy variants
- Rapidly test hypotheses
- Assist in debugging and diagnostics

Human Responsibilities

- Define the research question
- Enforce data integrity
- Detect leakage and implausible results
- Interpret outcomes economically
- Decide what is credible and deployable

GPT accelerates *how fast* we get answers.
Humans decide *which answers are acceptable*.

Governance Principles

1. **Real data only** — no simulation shortcuts
2. **Audit before optimization** — impressive results are suspect
3. **Timing safety is non-negotiable**
4. **Every decision must be reversible**
5. **Results must survive economic intuition**

Why This Works

- GPT collapses research friction
- Humans provide skepticism and domain expertise
- Leakage is detected earlier, not later
- Final outputs are **incremental, interpretable, and robust**

This framework does **not** automate alpha discovery.
It **upgrades the researcher**.

What Changes in Practice

Traditional Research	GPT-Augmented Research
Weeks to prototype	Hours to prototype
Slow iteration	Rapid iteration
Late audit	Continuous audit
Fragile results	Credible results

Bottom Line

GPT does not replace quantitative researchers.
It replaces the friction that prevents them from doing their best work.