

AI Fundamentals & Multi-Tool Financial Research

Presented By

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MASTERING THE 'AI TRINITY' FOR INSTITUTIONAL
INVESTMENT ANALYSIS

SESSION 1 | MORNING (9:30 – 11:00)

Session Learning Objectives

By the end of this session, you will be able to:

- ▶ Understand Capabilities: Distinguish between different AI models and their specific utility in finance.
- ▶ Master the 'AI Trinity': Effectively combine Claude, ChatGPT, and Gemini for a cohesive workflow.
- ▶ Apply Prompt Engineering: Use 'Chain of Thought' reasoning for complex financial queries.
- ▶ Manage Risk: Build validation frameworks to detect hallucinations and ensure data privacy.

What is AI?

- AI vs. Traditional Software

► Traditional Software



IF... THEN... - explicitly programmed ;
predefined rules

► AI Systems



learns patterns from data and makes
decisions with minimal human guidance

What is AI?

- Generative AI in Real Estate

► Generative AI – what it is and how it works

► Commonly used platforms:

- ChatGPT by OpenAI;
- Claude by Anthropic;
- Gemini by Google.

► Relevance to real estate:

- Text generation;
- Question answering;
- Analysis and summarisation;
- Creative content;
- Problem solving.

► Application in real estate practice:

- Property listing;
- Personalised marketing;
- Market analysis, forecast and data visualisation;
- 24/7 response to client

The Modern AI Trinity for Finance

Three Specialized Roles:

- ▶ 1. The Deep Analyst: Claude (Anthropic)
 - ▶ Best for: Large document processing, complex reasoning, writing.
- ▶ 2. The Quant & Coder: ChatGPT (OpenAI)
 - ▶ Best for: Python generation, iterative analysis, Excel automation.
- ▶ 3. The Integrator: Gemini (Google)
 - ▶ Best for: Multimodal analysis, Google Workspace (Sheets/Docs) integration.

Deep Dive: Claude (The Analyst)

- ▶ Key Advantage: Large Context Window
 - ▶ Can process 200k+ tokens (approx. 500+ pages) at once.
- ▶ Primary Use Cases:
 - ▶ Summarizing Annual Reports (10-K, 20-F).
 - ▶ Due Diligence document review.
 - ▶ Extracting structured tables from PDFs to JSON/CSV.
- ▶ Why it wins:
 - ▶ Superior 'Chain of Thought' reasoning reduces logic errors in qualitative analysis.

Deep Dive: ChatGPT (The Coder)

- ▶ Key Advantage: Advanced Data Analysis (Code Interpreter)
 - ▶ Writes and executes Python code to perform math, ensuring calculation accuracy.
- ▶ Primary Use Cases:
 - ▶ Calculating financial ratios (e.g., WACC, ROE) from raw data.
 - ▶ Cleaning messy CSV/Excel datasets.
 - ▶ Exploratory data analysis and script writing.

Deep Dive: Gemini (The Integrator)

- ▶ Key Advantage: Native Google Workspace Integration
- ▶ Primary Use Cases:
 - ▶ Sheets: Populating comparison tables directly in spreadsheets.
 - ▶ Multimodal: Analyzing charts, images of graphs, and hand-written notes.
 - ▶ Collaboration: Drafting reports in Docs based on Drive files.

The 'Fourth' Tool: Perplexity AI

- ▶ Role: Real-time Intelligence & Fact-Checking
- ▶ Function:
 - ▶ AI-powered search engine with strict citation linking.
- ▶ Use Cases:
 - ▶ Finding current stock prices, recent news, and market sentiment.
 - ▶ Verifying facts claimed by other AI models.

Prompt Engineering for Finance

- ▶ 1. Chain of Thought (CoT)
 - ▶ Force the AI to 'think step-by-step' to improve logic.
 - ▶ Good Prompt: 'Analyze revenue growth, then margins, then debt. Based on these, provide a risk assessment.'
- ▶ 2. Output Formatting
 - ▶ Explicitly request tables, JSON, or Markdown for easy copy-pasting.
- ▶ 3. Persona Adoption
 - ▶ Assign a role: 'Act as a Senior Credit Analyst...'

Validation & Risk Management

- ▶ The 'Human in the Loop' Validation Framework
- ▶ 1. Cross-Verification
 - ▶ Use Perplexity to fact-check Claude's summaries.
- ▶ 2. Source Tracing
 - ▶ Demand page numbers: 'Cite the page in the PDF where you found this figure.'
- ▶ 3. Data Privacy
 - ▶ Rule: Never input Material Non-Public Information (MNPI) or PII into public models.

AI Toolkit for Finance Professionals :

LLM:

- ▶ ChatGPT (creative content, general tasks)
- ▶ Claude (analytical work, document analysis)
- ▶ Gemini
- ▶ NotebookLM (research synthesis)

Visual AI:

- ▶ Image Generation (Midjourney, DALL·E);
- ▶ Video Generation

MS tools - CoPilot for:

Outlook; word; PowerPoint and Excel

Industry-Specific Tools:

- ▶ AI-Powered CRMs;
- ▶ Property Management Platforms:
- ▶ Transaction Management Systems

AI Misconceptions and Ethical Considerations

Common Misconceptions

"AI Will Replace Real Estate Agents"

"AI is Always Accurate"

"You Need Technical Expertise"

"AI is Just a Fad"

Ethical Considerations

Data Privacy

Transparency with Clients

Fair Housing Implications

Human Oversight

Conclusion

Key Takeaways:

- ▶ AI is transforming our work by automating routine tasks, enhancing decision-making, and creating new capabilities.
- ▶ The most successful professionals will combine AI efficiency with human expertise.

Questions?

Let's take a few quick questions before going to the next session.

What aspects of AI in real estate are you most interested in exploring further today?

Exercise Preview: Multi-Tool Analysis

- ▶ We will now apply this workflow to a major global energy company.
- ▶ Step 1 (Perplexity): Gather real-time news and consensus.
- ▶ Step 2 (Claude): Analyze the 200-page Annual Report.
- ▶ Step 3 (ChatGPT): Calculate financial ratios using Python.
- ▶ Step 4 (Gemini): Compile a peer comparison table.