Generative AI for Finance
Spring 2026

RICE | BUSINESS
Jones Graduate School of Business

Instructor

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Meeting Schedule

TTh 12:30 – 2:00
3/17/2026 – 4/23/2026

Special session:

- Saturday, March 21, 9:00-12:00 - optional Python session

All sessions will be in McNair 212, including the special session.

Learning Objectives

1. How to use AI with code-execution tools to perform financial analysis, handle data and text, and generate visualizations, spreadsheets, reports, and presentations
2. How to use AI with other tools – terminal execution, browser control, database connections – for finance applications
3. How to collaborate with AI in planning, executing, and evaluating financial analysis
4. How the different AI code execution environments work - cloud sandboxed, virtual machines, local
5. How to create and deploy task-specific prompts that can be used repeatedly
6. How to reduce the hallucination rate of AI through retrieval-augmented generation, fine tuning, or building specialized models
7. How AI can be used to classify the sentiment of news or social media for trading

Course Description

The course is about financial applications of generative AI. We will discuss and use current AI tools but also discuss broader concepts of AI and how they relate to finance. The course will be "hands-on." We will be working in class on laptops each day.

We will use Anthropic's Claude throughout the course. Anthropic has made a number of important innovations that the rest of the industry has followed, including a protocol for connecting AI to tools (Model Context Protocol), coding agents that can execute terminal commands (Claude Code), and code execution in a virtual machine (Claude Cowork). Claude has also generally led all other models in coding tasks for the past two years. We will also briefly look at ChatGPT, Gemini, and other large language models.

The following lists the course topics in the order that we will study them. This is not a "by day" schedule. In discussing each AI tool, we will see how it can be used in financial analysis. The finance topics that we will cover are ones you have already seen in the core Finance course and the Applied Finance course that are prerequisites. The two finance topics on which we will spend the most time are mean-variance analysis and discounted cash flow valuation of companies.

1. AI that writes and executes code
2. AI coding for mean-variance analysis
3. Executing AI-written code in Jupyter notebooks
4. Connecting tools to AI
5. Connecting a virtual machine to AI
6. Connecting your computer to AI
7. Using AI inside Excel
8. Automated as-needed loading of specialized prompts
9. Using AI inside an integrated development environment (IDE)
10. Using AI for discounted cash flow valuation of companies
11. Retrieval augmented generation
12. Fine-tuning and small language models
13. Building an AI agent
14. Trading on news with AI

Grading

Grades will be based on six group assignments (15% each) and peer assessments (10%). Groups can consist of no more than five students. Each assignment consists of multiple exercises and will take a nontrivial amount of time to complete. Do not wait until the last minute to get started.

The assignments are posted on Canvas. An assignment is due each Tuesday at 11:59 pm beginning March 24 and ending April 28 (during exam week).

Claude Accounts

Each student will be reimbursed for a Claude Pro account ($20 per month). The Pro account provides access to Cowork, Claude Code, and the Claude plug-in for Excel, all through the Claude Sonnet model.

Honor Code

The Rice University honor code applies to all work in this course.

Disability Accommodations

Any student with a documented disability requiring accommodations in this course is encouraged to contact me outside of class. All discussions will remain confidential. Any adjustments or accommodations regarding assignments or the final exam must be made in advance. Students with disabilities should also contact Disability Support Services in the Allen Center.