Exercise 3D: Build a Finance Analysis Skill

MGMT 675: Generative AI for Finance

Create a skill (in `.claude/skills/`) that encodes a consistent methodology for one of the following:

(a) DCF valuation skill — specify:

- How to estimate each assumption (e.g., "use trailing 5-year revenue CAGR for sales growth," "use sector median EV/EBITDA for exit multiple")
- Required output tables (pro forma income statement, FCF, sensitivity table)
- Sensitivity ranges to test
- Output format and labeling

(b) Portfolio optimization skill — specify:

- Data source and estimation window (e.g., "trailing 60 months of monthly returns")
- Constraint set (e.g., no short sales, max 25% per position)
- Required outputs (weights table, frontier plot, key statistics)
- Benchmark for comparison

Test the skill by running it on **two different inputs** (two different companies for DCF, or two different asset sets for portfolio optimization) in **separate conversations**. Verify that the methodology is consistent across both runs.

Deliverables.

- SKILL.md file (`3D-SKILL.md`)
- Output from first test (`3D-Test1.pdf`)
- Output from second test (`3D-Test2.pdf`)
- Brief note confirming methodology consistency or explaining where it differed (`3D-Consistency.pdf`, half page)