Project Lab Proposal Form

The University of Chicago's Master of Science Program in Financial Mathematics (MSFM) partners with companies through the Project Lab course (FINM 36000), to provide students with hands-on research experiences, putting knowledge gained from the classroom into practice.

You can find additional details, along with FAQs within the Project Lab Company Guide: https://uchicago.app.box.com/s/p4d37a28doxsh8xlm6dap2lwt2gd8f33

If you would like to propose multiple projects, please complete a new proposal form for each project.

If you have any questions, please contact Sue Clark at **sueclark@uchicago.edu**.

Email *

karima.kenny@nb.com

Company name (and division/department/desk, if applicable): *

Neuberger Berman

Physical address of organization: *

190 S. LaSalle St, 24th Floor

URL and/or description of organization: *

nb.com

How many teams is your organization sponsoring for this project? *

1

Up to six students may be assigned to your team. If you would prefer a different number, please indicate so here.

Company Representative name: *

Karima Kenny

Company Representative title: *

Chief Administrative Officer

Company Representative email address *

karima.kenny@@nb.com

If applicable, additional Company Representative name(s), title(s), and email(s):

Ajay Jain, Head of FI Quantitative Strategies, Ajay.Jain@nb.com

Are any representatives also alumni of the University of Chicago? If yes, please indicate their name and applicable degree program:

Aside from the initial briefing meeting and the final presentation, how often will the team meet with the representative(s) to deliver progress reports and receive advice? *

Weekly

Will such discussions be face-to-face, or by some form of teleconferencing? If face-to-face, will the meetings be at your company site, on-campus, or some other arrangement? *

Zoom

Will the team members be required to sign non-disclosure agreements? *

Yes

Project topic/title: *

Using generative AI to capture key macroeconomic dynamics

Background motivation of the project:

Scrap, transform and distill large amount of information from sellside research reports to capture key macroeconomic dynamics with generative AI. Specifically, develop processes to keep track of strategists / economists' views and identify any shifts in views and their drivers, focusing on US and European rates market. Offer opportunities for students to touch on macro research and build quantitative tools to gain market insights and understand macroeconomic drivers.

Skills required (e.g. programming languages/software packages/statistical models or tools, *
etc.):

Suggested Tools and Technologies:
1. Techniques in financial market modeling to contextualize data.
2. Vectorization
3. Python
4. GPT-4 Turbo

Project objectives or questions to be investigated: *

Expected Outcome:
1. Build an automated toolset to succinctly summarize, monitor and compare shifts in opinions among economists and strategists.
2. The toolset should be able to efficiently document the research reports/commentaries.
3. The toolset should be scalable to accommodate future enhancements and applied to other regions and other asset classes (equities, FX, commodities).

Implementation details:

Project Framework:
1. Develop a system to track publications from leading economists and strategists by setting up targeted alerts.
2. Implement a generative AI-driven process to routinely prompt, summarize, and compare the evolving perspectives of economists and strategists.
3. Synthesize the summarized views to generate market and risk scenarios, identifying potentially mispriced assets through contrasting the views of economists and strategists.

Reference materials, if any:

Students may add this project lab to their resume, including the company name and a general description of their research (abiding by any applicable NDA). We advise they use the following format:

Company Name

Quantitative Researcher - University of Chicago Project Lab

General description of research

Please note below if you prefer something different.

Any additional comments:

Google Forms