

The Tippie College of Business is seeking proposals for business-related research projects that aim to incorporate machine learning approaches in the analysis and interpretation of project data. The award will provide computational expertise and resources through the Iowa Initiative for Artificial Intelligence (IIAI, [www.iiai.uiowa.edu](http://www.iiai.uiowa.edu)) to directly support the selected research projects. Selected projects may be new projects or computational expansions of existing funded research projects.

**For example, one previous IIAI-Tippie project “Developing New Measures for Research on Impression Management” – Bodi Vasi, PI – resulted in an NSF research grant submission** (details can be found at <https://www.iiai.uiowa.edu/sites/default/files/files/2020-IIAI-Pilot-Report-Tippie-BodiVasi-w-Grant-Cover-Pages.pdf> ).

Responsive proposals will:

- address important questions in business research using data-driven approaches
- be based on access to sufficient data to answer (or start answering) such questions
- seek machine learning expertise as an enabling strategy
- describe the predictors or input variables (X) and the response or outcome variables (Y)
  - for example: "We aim to use 10 years of revenue, profit, and investment data together with other quantifiable company information from a large number of companies (X) to predict future performance characteristics of such companies." or "We aim to use domestic flight data information together with historic interest in specific routes and % seats occupied at a specified date prior to the flight (X) to predict the maximum cost of the airline ticket (or ticket price structure if multiple price offerings exist that will yield >95% full flights on average (Y))."
- be willing to invest effort in building a new interdisciplinary team

Research projects that are not currently supported by external peer-reviewed funding should include realistic plans for preparing and submitting a large (\$200k and more) extramurally-funded Tippie College of Business-oriented interdisciplinary research proposal within 12 months after receiving pilot funding.

Awards will amount to the equivalent of \$10,000 in support from the IIAI. This corresponds to about 10 weeks of expert support at 25% effort and the requisite computational resources to achieve results adequate as preliminary data in a grant proposal. It will also include an expert write-up of the needed methodology for a topical research proposal. The IIAI will consult with awardees to plan for longer-term collaborations that will ensure the sustainability of the project. It is anticipated that one (1) award will be made during this round.

Applicants are required to review concepts with M. Sonka ([milan-sonka@uiowa.edu](mailto:milan-sonka@uiowa.edu)), Director of IIAI, and Nick Street ([nick-street@uiowa.edu](mailto:nick-street@uiowa.edu)), Assoc. Dean for Research of Tippie College of Business, who will make the recommendation for a full submission. An internal peer-review committee will be identified to review proposals and make recommendations concerning funding to the Tippie College of Business leadership.

The proposal submission has 3 phases, as shown in the timeline below:

- (i) emailing a statement of intent, consisting of items 1, 3, and 5 from the list below
- (ii) discussing your plans with IIAI, and
- (iii) submitting a brief proposal (maximum 2 pages) addressing the following:
  1. Project Title
  2. Investigators

3. Specific aims + Statement of Tippie College of Business Relevance; should include a brief, conceptual description of the predictor or input variables (X) and the response or outcome variables (Y)
4. Current support for the project (if any)
5. Preliminary data (if any), description of available data to facilitate the proposed research
6. Specifics on how involvement of the IIAI expertise/use of computational resources will advance the research
7. Plans to receive extramural funding

Timeline:

- 11/5/2021
    - Email a brief statement of intent to M. Sonka ([milan-sonka@uiowa.edu](mailto:milan-sonka@uiowa.edu)) and Nick Street ([nick-street@uiowa.edu](mailto:nick-street@uiowa.edu))
    - This email should include a draft document briefly outlining items 1, 3, 5 of the proposal above
  - 11/8/2021 – 11/17/2021
    - Scheduled Zoom meetings of each team with IIAI to discuss the proposed research
  - 12/10/2021
    - Proposal submission (2 pages max.)
  - 12/11– 12/15/2021
    - Internal review of proposals, recommendation to Tippie College of Business leadership
  - 12/20/2021
    - Selection of projects to be funded
  - 12/21/2021
    - Announcement of 1 funded project
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