

2022 Summer Seed Grants for Data Science

Submission deadline: **10pm EST on March 15, 2022**

SDS Mission Statement: *We commit to excellence in education, research, community engagement, and inclusion to shape and lead the future of data science education and practice. We will teach our students to be responsible and ethical data science practitioners, leaders, researchers, and innovators in an increasingly data-driven and global society.*

The School of Data Science (SDS) is now accepting research proposals for the Summer 2022 seed grants for data science. This seed grant opportunity provides up to \$15,000 per award for UNC Charlotte and partnering faculty and researchers. A total funding of \$100,000 is anticipated in this cycle. The School of Data Science is committed to identifying and supporting pre-competitive research proposals on interdisciplinary and transformative research ideas that demonstrate the potential to secure larger external grants in the near future. The previous winners of the SDS seed grants can be found at <https://datascience.uncc.edu/research/seed-grants-data-science>.

The teams that submitted proposals for Top Tier Areas of Research Excellence are especially encouraged to apply.

At the core of the School of Data Science lies an interdisciplinary nature for research and real-world applications. The purpose of this funding opportunity is aimed to support interdisciplinary research projects, with the hope of fueling the collaborative spirit that already exists within the field of data science.

Proposals must be submitted by teams comprised primarily of UNC Charlotte researchers. Candidate teams should be multidisciplinary and draw personnel from at least two colleges, with at least the principal or one co-principal investigator currently holding an affiliate or core faculty appointment within the School of Data Science. While collaborators external to UNC Charlotte may be included, the focus is on supporting the formation of research teams at UNC Charlotte.

Scope and Evaluation:

- Up to a maximum of \$15,000 budget per proposal; proposals of less than the maximum are encouraged (e.g., \$5k, \$10k)
- Proposals must be submitted electronically by **10pm EST, March 15, 2022**;
- The research committee of the SDS will evaluate the submitted proposals and select the best proposals for funding;
- Awardees will be announced by April 20, 2022;
- Initial Funding Disbursed to a PI's home department: Early May 2022; The PI's home department is responsible for receiving and managing funds.
- For summer grants, funding is required to be **spent by September 30, 2022**.
- Funds are allocated for a 4-month period maximum and a request for external funding is expected to be **submitted before the end of year 2022**.
- The SDS reserves the right to adjust the award amount to reflect funds availability, quality of a proposal, the number of quality proposals submitted, and other funding restrictions.

Additional Resources:

- Twitter Historical, Twitter's Spritzer Stream, Sample COVID stream and other data sets.

Restrictions:

- Projects already externally funded or for which an external proposal is currently under review are not eligible.
- Projects that have already received internal funding are not eligible.
- **A researcher cannot be a recipient of more than one SDS research grant per academic year.**
- Continuation of an ongoing research project by the same or similar group of researchers will not be supported.
- In general, requests for additional funding of an existing seed grant will not be considered.
- Expenditures that are not allowed:
 - Expenditures generally made by departments and colleges (e.g., office supplies, travel to professional conferences, etc.)
 - Delivery of outreach programs or services
 - Requests for funds for meals and snacks
 - Publication charges

Criteria for Proposal Review:

1. Intellectual merits:
 - 1) Novel and transformative ideas that involve cross-college or interdisciplinary collaboration around data science;
 - 2) Quality and coherence of the research design and detailed plan of activities;
2. Broad impact of the proposed research
3. Potential for external grant funding
 - 1) Projects' potential for leading to grant proposals that are more likely to be externally funded.
 - 2) Identified target funding agencies, programs, and dates for follow-on external funding application(s).
 - 3) Funding agencies or organizations of national or international significance will be given priority over regional ones.
4. Qualification of the project team
 - 1) All faculty eligible for UNC Charlotte Faculty Research Grants are eligible for this award.
 - 2) Teams with at least a PI/Co-PI affiliated with SDS.
 - 3) All faculty involved in the project must be listed as co-PIs or consultants.

5. The results of previous projects funded by SDS seed grants (e.g., publications, grant proposals submitted and awarded)
6. Projects that best fit the research priorities of SDS.

Structure and Submission of Proposals:

Proposals (including the budget) should be named by the first and last names of the leading PI on a proposal (e.g., First name_last name_seed2021.pdf) and must be submitted as one single PDF file by email to Dr. Dongsong Zhang (Director of Research, SDS. Email: dzhang15@uncc.edu). Please include “**Seed Grants for Data Science**” in the subject line. To complete your proposal submission, please follow the instructions provided below.

The proposal must be clear, readily legible, and conform to the following requirements:

- Font size of 12 points
- Single-line spacing
- 1-inch margin on each side

To be considered for funding, the following must be included in your submission:

1. **Cover page** (one page) contains the project title, 3-5 descriptive keywords, PI and collaborator(s) name, affiliation, and contact information, total funds requested, projected start and end dates, indication of whether this proposal has been submitted to the seed grant program before, and a note indicating if the proposal is developed by a team or part of a team that is selected as a Top Tier Area of Research Excellence by UNC Charlotte.
2. **Project summary** (one page): provide a one-page summary of the proposed work by following the NSF project summary guidelines listed below. The project summary should consist of three main sections:
 - (1) An **overview** includes a description of the activity that would result if the proposal were funded and a statement of objectives and methods to be employed.
 - (2) **Intellectual merit** of the proposed activity: should describe the potential of the proposed activity to advance knowledge and the contribution the proposed research will make to the related field and others.
 - (3) **Broader impacts**: should describe the potential of the proposed activity to benefit society and contribute to the achievement of specific, desired societal outcomes. For example, what are possible applications of your proposed research? Why would the general public care? Does it have any economic, environmental, and social benefits? Etc.
3. **Project Description** (not to exceed 4 pages) The project description should address the following points:
 - a) *Purpose and Significance*: Provide a clear and concise explanation of (i) the target

- research problem of this funding request and its significance, (ii) the research goals/questions and the proposed research activities for which the funding is requested, (iii) how these activities will enhance your ability to apply for external funding as a larger project, and (iv) what data will be collected from the project, if any.
- b) *Overall Project description*: (i) the proposed research design and methodology, (ii) expected outcome of the project; (iii) potential novel research contributions of the proposed research; (iv) work plan and timeline of the proposed research.
 - c) *Research Team*: Describe the qualifications, roles, and responsibilities of all research project team members, and what value collaboration adds to the project.
 - d) *External Funding*: Identify proposed/target channels and dates for follow-on external funding application(s).
4. **A two-page bio of each major participant, which includes:**
- a) Education, including the dates when degrees were awarded;
 - b) Current employment status;
 - c) Five most relevant publications (to the current project);
 - d) Most relevant experience (including but not limited to software programs, methods known, and training)
 - e) Funding history: please provide a list of externally funded projects received in the **past five years**. For each project, please list the project title, funding agency, project duration, roles (e.g., co-PI), and award amount.
5. **Budget and Justification**: Provide itemized budget and budget justification required by the project
- All of the items listed must be reasonable, necessary to accomplish project objectives, allowable in terms of the applicable federal cost principles, auditable, and incurred during the grant period. Charges to the project for items such as salaries, fringe benefits, travel, and contractual services must conform to the written policies and established practices of the University.

Acceptable budget items include RA support, dataset purchase expense, subject compensation, software, hardware, small pilot studies, etc. that are directly related to carrying out the proposed research.

The cost of project activities to be undertaken by a third-party contractor should be included in this category as a single line item charge. A complete itemization of the cost comprising the charge should be provided in an attachment. If there is more than one contractor, each must be budgeted separately on the form and must have an attached itemization.

6. Data

What data will be collected and/or generated during the proposed study? Are you willing to share them with the school (Encouraged but not mandatory)?

The awardees are highly encouraged to share data (after de-identification of users) collected from the awarded projects with the School of Data Science, if possible, which will be incorporated into a secured data repository for potential future use for research or teaching by other SDS faculty. Benefits to sharing your data may include, but not limited to, the following:

- Extending the value, discoverability, and impact of your data by hosting it in a secured repository.
- Making your data/research projects citable.
- Facilitating scientific advancement and reproducible research by enabling other researchers to build upon your work.
- Ensuring long-term preservation and accessibility of your data through the repository's archival curation.

The requests from UNC Charlotte faculty for access to any archived dataset will be reviewed and approved by the PI or co-PIs of the awarded project who created the original dataset(s) or by the School of Data Science upon agreement.

7. Prior external and internal funding

- 1) Current and prior (the past 5 years) external funding support: What are the current externally funded projects of PIs and their focus?
- 2) Have any PIs on this proposal received any prior seed grants from SDS before? If so, please list the prior SDS seed grants received by any PI/Co-PIs of this proposal, including the project title, term/year funded, and results, which include, but not limited to, the publications and grant proposals resulted from those prior SDS seed grants.
- 3) Has the current proposed work been funded by any other internal or external funding sources?

8. Bibliography (No more than 20)

Project Reports and Credit

Investigators are expected to provide a brief (2~3 pages) project report within one week after the ending date of the project term, including, but not limited to, the research activities conducted and the degree to which the project goals have been achieved. The report should be sent to dzhang15@uncc.edu. **Please acknowledge the support of the SDS seed grant(s) in the published papers resulting from the awarded projects.** Failure to submit the project report by the deadline may result in the ineligibility of PI/Co-PIs for applying for future SDS seed grants. An

update of this report should be submitted when a related grant proposal is successfully submitted for external funding in the future.

External funding must be sought for the “overall project” for which seed funding was requested within the indicated time frame. It is expected that PIs will credit the SDS at the time of submission and approval of the proposal through Niner Research.

Should you have any questions about this seed funding opportunity, please contact Dongsong Zhang at dzhang15@uncc.edu.