# Call for Collaborative Data Science Projects


The Data Sciences Initiative (DSI) is excited to invite small teams of researchers (faculty, postdocs and/or advanced graduate students) to propose novel 1- or 2-quarter long projects that would significantly benefit from collaboration with data scientists. The DSI team will work with the selected researchers to turn these proposals into completed projects.

The projects we envisage include both concrete plans for completing a new or existing project, and also collaborating to turn a vague idea into a feasible, fundable project proposal. The outcomes of the project might be, for example:

- a non-trivial data analysis
- making computations feasible by significantly improving the computational performance
- developing new software for data analysis or simulation
- creating a rich visualization
- publishing data via an API
- integrating valuable complex data sets
- a plan for ambitious new data-driven research.

The data may come from your own work, or combining different available sources of data, or via simulation, or all of these.

We encourage interested researchers from all backgrounds to apply, regardless of their own technical Data Science skills. The key is collaboration where the combination of skills between your team and ours makes the projects possible.

We strongly encourage proposals from all disciplines, especially the humanities and social sciences.

The DSI is also very willing to collaborate with researchers on grant proposals and other longer-term research projects.

For the selected projects, the DSI will work collaboratively with the researchers over the Spring, Summer and Fall as necessary, and provide space in the DSI suite in Shields Library to house the researchers. Those selected will participate in the DSI events and day-to-day interactions, and work with us in the space at least 20% of the time. This will be a terrific opportunity to exchange ideas generally and learn new technologies, skills and perspectives for all concerned. With several different projects evolving simultaneously, we will create a stimulating, multi-disciplinary short-term home and be part of the larger Data Science community on campus.

We are seeking projects that would not happen without either a mix of disciplines, or different skills that the researchers are missing and need for the project.

The skills the DSI offers range across the entire data analysis pipeline, including

- data acquisition (Web scraping, database queries, data extraction)
- data management,
- data cleaning, record matching, ....
- exploratory data analysis & visualization,
- statistical/machine learning and modeling,
- text mining and natural language processing,
- scaling computations and high-performance computing,
- data technologies,
- presentation visualization (dashboards, D3.js, ...)
- software engineering.

The projects can range from shaping a new, ambitious research project to adding the necessary skills to complete an existing vision, or the technical know-how to overcome obstacles in existing projects.

The proposals should be succinct and include

- Contact information and resume for the project lead, who will be the primary contact and commit to spending time in the DSI suite to work on the project.
- Describe the big picture questions, motivation and relevance of the project.
- Identify, as best as possible, which Data Science skills are needed and why the DSIs help will make the project feasible.
- Outline the expected outcomes (publications, Web sites, APIs, software, visualizations, ...).
- Provide a tentative timeline for the work.
- The names of the other researchers who will be physically joining the team to undertake the project, along with their resumes.
- The format and availability of the data that is critical to the project. This should include a description of the size of the data, any issues related to privacy and access, necessary integration of different data sources.

Please provide a complete but succinct overview of the project. The initial proposal should be, at most, 3 pages (not including the resumes).

Submissions will be reviewed on an ongoing basis, but priority will be given to those received by April 1st, 2016 or earlier.

Email proposals as PDF documents to datascience@ucdavis.edu with the subject "Call for Projects".