

UND Data Skills Pathway: Call For Projects Ideas

Need/Problem

- Data is everywhere, but many students never practice the full workflow employers expect.
- Real-world data is messy (gaps, noise, sensor issues), not “perfect” class datasets.
- The pathway gives a clear, supported path into strong data skills and paid research and internships.

Apparatus/Facility

- Authentic instruments + model datasets
- Live visualization via CHORDS + Grafana dashboards.
- Python/Jupyter templates for metadata and quality checks.

Objective

Build job-ready skill: students learn to clean data, check quality, analyze, visualize, and communicate results using reproducible workflows and documentation.

Concept

15-week, for-credit pathway with 4 stages:

1. **Orientation** (data careers + expectations)
2. **Tools Bootcamp** (Python + workflows)
3. **Guided Project** (mentored project with weekly check-ins and feedback)
4. **Final Mini-Presentation** (report + slides students can use as portfolio deliverables).

Data Skills Microcredential (in development): student can use to show verified skills to employers.



Advancement

Full data workflow: Students demonstrate the full data lifecycle

Project-based assessment: Students assessed through faculty/industry-proposed research projects that uses real datasets, and strong mini-projects may continue into paid research or internships.

End Users

- UND undergrads across majors building data careers.
- Employers seeking trained students with data skills.
- **Faculty:** have a data question that could support a paper, a proposal, students can take it on as a mini-project.



Interested Mentor?

Applicability: Any Data-driven Field, Data Skills Microcredential, Project-based Assessment, Paid Internship Pathways