SONIC Data Science Internship Opportunities Winter 2022-2023

Course Credit:
Research Practicum registration #: 389 (COMM_ST)
Independent Study registration #: 399-0 (IEMS), 399-0 (CS) and 499-0 (CS)

Duration:
Winter Quarter 2022-23 (with the possibility to continue)

Location:
In person or Remote

Organization Overview:
The Science of Networks in Communities (SONIC) research group advances social network theory and methodology through the development of cutting-edge techniques to understand and enable networks in diverse communities. For more information, please visit http://sonic.northwestern.edu/about

Internship Opportunities:
SONIC is excited to offer the internship opportunities this quarter:

- ESM Project (details below)
- Science of Science Project (details below)

Requirements:
Data Science Internships are open to current undergraduates or graduate students enrolled in an accredited degree-seeking program at Northwestern. Candidates must be able to demonstrate attention to detail, proficient writing/communication skills, analytic thinking, and emphasis on deadlines. Candidates must commit to attend weekly lab meetings in-person or virtual (Tuesdays, 11:30-12:30). Many projects require candidates to have at least basic knowledge of programming or statistical software. For project specific requirements and preferences, see descriptions below.

Application Instructions:
For general questions about the internship and the SONIC research group, please complete this Google form and contact Dorothea Boyle, at dorothea.boyle@northwestern.edu for questions.
RESEARCH OPPORTUNITY:
ESM Project

Organization Overview:
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Description:
This project aims to understand how communication technologies enable collaboration during the sudden workplace disruption caused by COVID-19. Intern responsibilities include:
  - data cleaning of digital traces
  - implement statistical models to understand how relational networks and communication patterns among employees evolve during the pandemic

Required Qualifications:
This position is open to current undergraduates or graduate students enrolled in an accredited degree-seeking program at Northwestern. Interest in communication and relationship networks within organizations

Departments: MMSS, IEMS, Comm, Math, Stats, CS or other departments
Education level: Undergraduates or Graduates

Preferred Qualifications:
1) Interest in writing research papers.
2) Proficient in R, Jupyter notebook
3) Prior experience in social network analysis (e.g., ERGMs, SAOM, ALAAM) is strongly preferred

Application Instructions:
Please complete this Google form and send a resume and brief cover letter describing your interest in the position to Jasmine Wu (jasminewu@u.northwestern.edu).
Organization Overview:
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Description:
Science of Science: Social network analysis and text analytics internship. The intern will work with a research team on:
- identifying scientists’ prior collaboration networks
- decoding scientists’ areas of expertise using text analytics tools for mining the text contained in scientific publications
- running social network analyses to understand the factors that determine effective scientific team assembly and collaboration

Required Qualifications:
This position is open to current undergraduates or graduate students enrolled in an accredited degree-seeking program at Northwestern. Additionally, candidates must have:
- Interest in studying scientific collaboration, teams, and social network
- Interest in gaining data science experience (from data pre-processing to creation of knowledge)
- Proficiency in R, Python, and SQL
- Experience with network analysis

Departments: CS or other departments
Education level: CS Undergraduates (Senior) or CS Graduate students

Preferred Qualifications:
Ideal candidates will have a strong interest in social science research and experience with Python, SQL, and/or the R programming language. Prior experience with research and knowledge of social network analyses and text analytics tools is preferred.

Application Instructions:
Please complete this Google form and send resume and brief cover letter describing your interest in the position to Jasmine Wu (jasminewu@u.northwestern.edu).