Credit:
Interns will be paid an hourly rate

Duration:
Fall 2021 (possibly extendable to subsequent quarters)

Location:
In person for meetings, Remote otherwise

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:

Details for the Data Science Intern position are 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, emphasis on deadlines. 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:
To apply, please send your materials to the responsible person listed in the flyers below. For general questions about the internship and the SONIC research group, please contact our lab manager, Arshya Srinivas at arshyasrinivas2021@u.northwestern.edu. Thank you.

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Description:

This project aims to understand how recommender systems, such as My Dream Team (MDT), influence team formation processes. As organizational problems increase in complexity in the 21st century, diverse teams are necessary to provide innovative solutions. Key questions include: Can these systems help organizations and their co-workers to assemble more diverse teams? Can increasing functional diversity positively influence team performance through increasing collective skill, expertise, and knowledge? Intern responsibilities include but may not be limited to: 1) evaluating/analysing poster slides created by participants and 2) organizing and analysing teamwork transcripts.

Required Qualifications:

This position is open to current undergraduates enrolled in an accredited degree-seeking program at Northwestern.

Some additional requirements include: 1) Proficiency in Excel and some prior experience working with R 2) Interest in learning about social network analysis

Departments: IEMS, COMM_ST
Education level: Undergraduate

Preferred Qualifications:

Interest in social networks research, and/or applying data science to understand human behavior/decision making.

Application Instructions:

Please send a resume and brief cover letter describing your interest in the position Victoria Kam (Victoriakam2021@u.northwestern.edu)

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Description:

MyDreamTeam (MDT) aims to design recommendation algorithms that facilitate team formation processes. Team formation problem is considering a NP-hard problem since finding the best team combination requires computing all the possible team combinations (i.e., brute-force search), which cannot be done in polynomial time. Contributions in this field are based on what variables and mechanisms are considered to find optimal solutions that approximate the best solutions, using less computer memory and less time. Based on our project *MyDreamTeam*, we design and test different algorithms that assemble teams from a student pool.

We are looking for a research intern who can support the design, implementation, and evaluation of team formation algorithms. The research intern will implement algorithms on Python, develop baseline algorithms to test the proposed algorithms, and evaluate algorithms using different datasets.

Required Qualifications:
This position is open to current undergraduates enrolled in an accredited degree-seeking program at Northwestern.

Some additional requirements include proficiency in Python, knowledge in genetic algorithms and Pareto Fronts.

Departments: IEMS, CS
Education level: Undergraduate

Preferred Qualifications:
Students who already took COMP_SCI 336: Design & Analysis of Algorithms; IEMS 341 – Social Network Analysis; IEMS 308-0 - Data Science and Analytics.

Application Instructions:
Please send a resume and brief cover letter describing your interest in the position to Victoria Kam (Victoriakam2021@u.northwestern.edu)