Welcome to REU-CAAR a Summer Research Experience for Undergraduates in the area of Combinatorial Algorithms and Applied Research. This handbook provides you with important information, advice, and tips for a successful summer of research and learning.

1 Program Goals

1. Research! work on problems where the answers are not already known.
2. Expose you to a variety of career paths: grad school and industry.
3. Build skills: working with a team, interpersonal communication, and project management.
4. Build a network with faculty and students.

2 What the Program Expects of You

1. Actively contribute to your research project and your team. The team nature of this internship requires the consistent presence and participation of all team members for the duration of the research project.
2. Check e-mail regularly. Reminders, notices, and requests will be posted to your email account.
3. Attend lunches, talks, and other events.
4. Participate in assessment activities such as surveys
5. Give a research presentation— details on this later (Probably Aug 8).
6. Attend other programs research presentations.

3 Your Mentor’s Role

1. Role modeling: Their experiences offer clues for your own professional success story.
2. Time: Faculty mentors offer their time to explain their research and their professional story, to answer questions, and to listen to your concerns and ideas. They will spend much time with you towards the beginning but less as you work on your own.
3. Background: Faculty mentors provide the big picture of what your research is about.
4. Connection: Faculty mentors provide the opportunity for meaningful interaction with their colleagues, graduate assistants, and advanced undergraduates. You may learn as much from these interactions as you do from your research tasks.
4 What Faculty Mentors Expect from You

1. **Enthusiasm:** Have an interest in the project, field, and topic. Become familiar with background literature (ask your faculty mentor for suggested reading).

2. **Assertiveness:** Think for yourself and support your own ideas.

3. **Adaptability:** Be flexible and willing to adapt to changes along the way.

4. **Maturity:** Accept responsibility for actions and assigned tasks. Know how to get along with other people. Own up to mistakes if they are made.

5. **More Maturity:** Be on time and reliable.

6. **Interdependence:** Be resourceful in completing research tasks and make decisions within your team. Monitor your own workload and inform your team when your share is too little or too much.

7. **Communication:** Be clear in verbal and written articulation of your thoughts. Seek clarification, ask appropriate questions, and provide suggestions. Notify your team and mentor in a timely manner of changes in plans, illness, or other issues affecting your participation.

8. **Be Bold and Curious:** If new problems come up then tackle them!

9. **Respect:** Show consideration for others’ opinions, preferences, and ways of being. Raise concerns as they arise in order to resolve issues quickly and directly.

5 Sexual Harassment and Discrimination

Sexual Harassment can be as subtle as a look or as blatant as rape. It can occur within and beyond the workplace. Sexual harassment most often occurs when a person with actual or apparent power or authority abuses that power, but it may also occur between individuals of equal status.

Discrimination is when there is a difference in treatment or favor on a basis other than individual merit. If you feel mistreated, there is probably something to it and you should talk it over with someone you trust.

If you feel your faculty mentor or another team member treats you differently because of your race, gender, ethnicity, age, ability, or sexual orientation, there are several ways to deal with the problem. Remember to only do what makes you feel comfortable.

1. Ask other team members about their perceptions of the individuals behavior. If their perceptions are similar, you will be supported and may be able to devise a collective approach.

2. Speak directly to the individual in a respectful manner. This will let you immediately know if the different treatment is a misunderstanding or a major problem. Keep in mind the potential personal consequences of confronting the individual.

3. If you feel uncomfortable, seek advice and guidance from others. Bill Gasarch or Samir Khuller can offer assistance and direct you to campus resources for help.
6 First Week Schedule

Mon June 2
1. 10:00AM: intro to the program Bill Gasarch
2. 11:00AM: Talk by Bill Gasarch on the Ramsey Games Project.
3. 12:00: Lunch in grad lounge.
4. Afternoon: Meet with Mentors and-or take care of some admin stuff. Obtain a Directory ID. Go to http://www.it.umd.edu/get_connected.html and activate new account, as you should also sign up for a UMCP email from this website. Completing this process will allow you access to the campus computing facilities, the wireless network, and the campus transit system. Sign up for UMD Alerts: https://alert.umd.edu/register.php

Tue June 3
1. 10:00AM-11:00AM: Jon Katz gives talk on his crypto projects. Then meet with Mentors, then Lunch.
2. 3:00PM: Get your univ ID card. Once you are in the PH system, please stop by the Office of the Registrar’s Service Desk located on the 1st floor of the Mitchell Bldg (Bldg 052) to take a photo and receive your ID card. On MWTh go early in the day. On Tue/Fri, go after 3:00 pm. This card will give you access to univ. services from June 1 through Aug 8.
3. (OPTIONAL) Join the Campus Recreation Center. There is a $45.00 fee per summer session (you will be here for two sessions). Session 1 is June 2-July 13 and Session 2 is July 14-Aug 8. To join, visit the Mem Services Desk in Eppley (Bldg 068). Bring your University ID

Wed June 4
1. 10:00-12:00 they work on their projects.
2. 12:00-1:30 lunch
3. 2:00PM : Louiqa gives talk on her Patterns in Data Project.
4. 3:00 Fill out a survey! What fun! Then back to work.

Thu June 5
1. 10:00AM-11:00AM: Elaine gives talk on her Cloud Computing Project.
2. 11:00-12:00: work on your projects
3. 12:00-1:30: Lunch then back to work.

Fri June 6
1. 10:00-11:30. Work on Projects
2. 12:00-2:00 Picnic! with other REUs! After Picnic relax!

Note: You are paid on June 20, July 3, July 18, Aug 1. You have a meal card NOW.
7 Typical Week Schedule AND Special Activities

The times not specified are times to work on your projects.

Typical Week:

1. Monday at 12:00 is lunch in the Grad Student lounge.
2. Wednesday at 11:00 is a talk by a faculty at UMCP or by YOU on your projects.

Special Activities

1. Tuesday June 10 is the Cybersecurity Symposium and we are all going! It is at the Riggs Alumni Center from 8:15AM until 5:30PM. (You do NOT have to be there at 8:15AM. I won’t. But you do have to go and enjoy the talks.)
2. There will be a field trip to the NSA and/or the Spy Museum coordinated with the REU-Cybersecurity program.
3. June 27. Game Night with the other REU’s.
4. July 17. Game Night with the other REU’s.
6. The last week there will be a presentation of your results with another REU program. The format has not been worked out yet.

8 Rooms

All rooms referred to are in A.V. Williams
All talks will be in 3258.
Here is where you will meet for your research:

Ramsey Games

1. M,Tu,We 3258 10-4 (EXCEPT July 14-25)
2. Th 3258 10-1:30, 2:30-4 (EXCEPT July 14-25)
3. Th 1:30-2:30: Don’t have a room for you, but probably meet in Bill’s office (3245).
4. Fr 4103 10-3:30
5. Exception: July 14-25 In those days it goes to AVW 4172 Except Wed 16 and Wed 23: AVW 4103 NOTE: May decide to meet in Bill’s office instead (3245)

Crypto Project and Cloud Project will meet in the same room.

1. M,Tu,We,Th 4185 10-4
2. Fr 10-4 4103

Finding Patterns in Data: CLIP lab.
9 The REU Team!

1. William Gasarch gasarch@cs.umd.edu and Samir Khuller samir@cs.umd.edu are in charge of the program. You will mostly be dealing with William Gasarch, though he may at times deal with Samir Khuller.

2. Mentors:
   
   (a) Ramsey Games: William Gasarch and Clyde Kruskal kruskal@cs.umd.edu
   (b) Crypto: Jon Katz jkatz@cs.umd.edu
   (c) Cloud Computing: Elaine Shi elaine@cs.umd.edu and Jon Katz
   (d) Finding Patterns in Data: Louiqa Raschid louiqa@umiacs

3. Admin: Teresa Lewandowski tylewandowski@gmail.com

4. Social Director: Liz Demetrides lizd902@gmail.com