Important Dates

April 2: Initial team meetings with Dr. Ramanujan.

April 8, 5pm: Deadline for submitting abstracts for Math and Science Research Symposium.

April 9, 5pm: Project proposal forms due to Dr. Ramanujan.

Week of April 20: Progress update meetings with Dr. Ramanujan.

April 29, 5pm: Deadline for submitting posters for printing.

May 6, 3–5pm: Math and Science Research Symposium (poster fair).

May 13, 5pm: Final papers due to Dr. Ramanujan. (**May 11 if either member of a team is a senior.**)

Project Grade Components

The project is graded on a scale from 0–100 points. Here is a breakdown of how your overall score for the project will be computed. The remainder of this document contains additional details about each of the components of the project.

Activity	Points Allocation
Preliminary meeting with Dr. Ramanujan	5
Project Proposal	10
Progress update meeting with Dr. Ramanujan	10
Poster and Oral Presentation	40
Final Paper	35
Partner and Self Evaluation	see below

Preliminary Meeting and Proposal Form

See email to class.

Progress Update Meeting

During the week of April 20, teams will meet with me to discuss the status of their projects. The logistics of scheduling these meetings will be detailed in a follow-up email. During this meeting, I will be looking for evidence of substantial progress towards your project goals — you should come prepared to talk about literature you have read, data you have collected (if applicable), code you have written, roadblocks you have encountered etc.

Poster Fair

The Math and Science Research Symposium poster fair is scheduled for Wednesday, May 6, from 3–5pm. Both team members are expected to attend and stay the entire duration of the session. The fair will be held on the first floor of the Baker-Watt Science Complex. Note that posters need to be submitted for printing by April 29 — **this is a hard deadline established by the symposium organizers and cannot be negotiated!**

Poster and Demo

Your posters will be evaluated on the following basis:

Clarity: Is your poster well-organized? Does it clearly identify the important ideas? Does it combine well with the flow of your oral presentation? Does it have a clear and succinct title?

Design: Does the poster have a good visual presentation that draws viewers in? Is the text clearly legible and in a suitable font size (ideally readable from a couple of feet away)? Bonus points if you did something creative, like a live exhibit, or engaged your viewers in an activity or a game.

Correctness: Are the mathematical/computational examples/principles correctly illustrated and explained? Is terminology defined? Is it being used correctly?

Benchmarks: To what extent did you deliver on the benchmarks that you listed on your proposal?

If a program prototype or demo is a part of your presentation, then you are responsbile for supplying a laptop for this purpose. Make sure to troubleshoot any equipment issues ahead of time — having a poor WiFi connection, a low battery charge, a missing power adapter etc. are not valid excuses. Keep a local copy of your code, so that you are not reliant on the availability of remote cloud storage services or your email.

Oral Presentation

Your team must be prepared with an oral presentation that is between 7 and 10 minutes long that summarizes your work. Both members must have roughly the same speaking time. In your presentation, be sure to address: the goals of your project, any background/context, a high-level description of your methods and techniques, and a summary of your results. **The target audience for your presentation is another computer scientist or mathematician — someone who is technically proficient but may work in a different area, who is nevertheless interested in learning about the details of what you did.** Of course, you will also have visitors from other disciplines at the poster fair, so you should also prepare a pitch for a more general audience. Both partners should be prepared to answer any follow-up questions.

Final Paper

The paper describing your work should be submitted via Moodle by 5pm on May 13 (5pm on May 11 if either member of the team is a senior). The paper should be at most 6 pages in length, and formatted using the AAAI LaTeX template. Remember the golden rule: *your writing needs to be sufficiently precise that a competent reader could reproduce your work.* Provide appropriate context and background to your work, cite reputable sources (not Wikipedia!), keep your writing crisp and to the point, use good spelling and grammar, use figures where appropriate, and present and analyze your results thoughtfully. You should also submit a zip archive containing any code that you wrote as part of the project.

Partner and Self Evaluation

Finally, every student should submit a paragraph each, describing their contribution to the project, and that of their partner. Reflect on your experience working together as a team and summarize it — what worked well? What didn't? What might you do differently? If you were to assign yourself a grade for the project, what would it be? What grade would you give your partner? Note that this evaluation will be completely confidential — only I will see it. In most scenarios, both partners will receive the same grade for the project. But in special cases, I reserve the right to make grade adjustments based on this evaluation. **The Davidson Honor Code applies, so please be honest in your evaluation of both, your own contribution and that of your partner.** This evaluation should be emailed to Dr. Ramanujan by 5pm on May 13 (5pm on May 11 for teams with seniors).