Evan Green

AMTH 491

Project Proposal

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This project will analyze the collaboration network in CPSC 365. I have also reached out to other professors about possibly extending the analysis to more classes. This project try to understand in better detail what success in this type of class looks like. The data that will be analyzed for this project is individual level data on the students in CPSC 365. This data includes grades on the problem sets and exams. Crucially the data also includes information about which students have helped him or her on that assignment. This will enable the creation of collaboration networks for each of the problem sets in the class.

The main goals of this project are

1. to understand the interplay between collaboration and grades
2. to catalogue and analyze the disparities of collaboration and grades across genders
3. to identify and classify students as sources of information or freeloaders on others and understand their significance
4. to understand the ways in which the network evolves over the course of time
5. to compare different networks to determine commonalities and individual quirks

I will also research and find current research on collaboration in classrooms and about the gender discrepancies in STEM. From my research and analysis, I will hope to hypothesize potential ways to improve the collaboration to make it fairer for all students and to improve overall learning. I will also attempt to create instructions on how other professors can run similar analyses on their own classes to make sure that collaboration is succeeding in their class as intended.