Research Summary

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This semester I have been performing research for Professor John Hopcroft and a newly formed research group involving Professor Bart Selman, Professor Paul Chew, and several graduate and undergraduate students. We began with the general research focus of detecting spam on the internet from a graph theoretic standpoint. After exploring relevant data sets, performing background research on PageRank, and common link spamming techniques, I have since begun focusing my research on developing algorithms like PageRank that provide more resilience to link spam. PageRank is vulnerable to the fact that structuring the links of certain groups of webpages can be used to significantly boost the page rank of certain pages and we have begun working on algorithms less vulnerable to this form of attack. The hope is that such an algorithm will not only provide a more meaningful ranking of pages on the internet but be used to detect existing spam. I have already learned much from my work with this group and I am excited to see where our work takes us.