

Statement of Interest

Clemson REU

I first heard about the Clemson REU from one of my upperclassmen who participated in the Clemson REU two years ago. He spent a significant amount of time passionately describing to me the REU in general as well as the project that his group worked and ultimately published research on. What I distinctly remember about his description was that each of the projects focused on finding subtle connections between objects in vastly different fields: in his case, his group uncovered a correspondence between the process of localizing monomial ideals and specific combinatorial actions on hypergraphs. Studying questions such as these practically forces you to do mathematics in the way that I find exciting. Whether it be links between ring theory and graph theory or coding theory and sporadic finite simple groups, these relations between seemingly disparate objects are precisely what I love in mathematics. The Clemson REU would provide me with an ideal pathway towards working on such connections in topics at the frontiers of research. Moreover, due to its high caliber, the experience would foster my mathematical growth immensely. In the long term, I could use the experience from the Clemson REU as a strong foundation for me to eventually begin my own independent mathematics research as an undergraduate and to be able to focus heavily on research right from the start of graduate school. Thank you for your consideration.

Regards,

James Harbour