Carter Rhea’s interest in astronomy led him to read a book on the controversy surrounding Stephen Hawking’s claims regarding information loss. “That book convinced me that this was what I wanted to study. So, I approached a professor whose research focuses on black holes. He said he’d be happy to take me on as a research assistant, and told me that I didn’t need a background in this area, only a willingness to learn how to conduct the research.”

Carter worked with that professor for two years while taking a full load of courses. “The research involves observations of super-massive black holes,” he explains, “and my role included data analysis, reduction and interpretation. I had to learn many computational techniques as well as computer programming. These tools allowed me to analyze observations of a supermassive black hole taken with X-ray and optical telescopes and infer several important properties of the black hole such as the size of its accretion disk and its spin.”

For Carter, a big advantage of studying astronomy at the College is that the liberal arts approach really complements scientific studies. “I like the idea of getting a well-rounded education. I want to be able to talk about everything knowledgably – whether that’s literature, science or history.”

He was able to do just that when he presented his research at a regional conference. “I spoke to a full audience who seemed to enjoy the presentation and come away with a good base understanding of my work.” Later, he traveled to Madrid, Spain, to offer a poster presentation at a conference sponsored by the European Space Agency. In the future, Carter will take his skills and knowledge to graduate school.