COMPUTING IN THE ARTS

Computer science wasn’t on Matt Cruse’s agenda when he first came to the College. In fact, he’d never taken a class in this field. Then, he took a course in game programming and he was hooked. Now, through his work in computing and the arts (CITA), Matt is developing novel solutions to challenges in his other area of interest – theatre.

“'I've been onstage or backstage much of my life. My mom was very involved in directing and staging productions.” Academically, though, Matt defines himself as strictly a math and science guy. "So the computing in the arts major turns out to be a beautiful amalgamation of my strengths and interests," he says.

Matt began marrying his artistic and scientific interests shortly after that game-programming course. Within the arts, he's most interested in technical theatre – specifically set design and construction. “That game-programming class taught me to see the potential of creating totally original works digitally. That stuck with me, and I've been interested in cutting-edge technologies ever since.”

While helping to construct sets for several of the College's theatre productions, he saw how frustrated directors get when they don't have as much time as they'd like to rehearse actors in a completed set. Then, his script-analysis professor, who directs plays in New York, voiced the same frustrations. "That's when the light bulb went on for me. We have tools like AutoCAD, so we have the complete set designs in hand ahead of time, but we only use them as blueprints. I realized that I could create a virtual environment using AutoCAD files. Then, by adapting motion-capture technology (think Xbox Kinect), I could figure out a way to use avatars for the actors and insert them into the virtual space. If I could do that, rehearsals could take place in completed sets weeks before the actual production. That's what's so great about computing in the arts. You don't just find new ways to use old technology. You actually create totally new technologies that offer solutions and address needs that aren't being met.”

Matt's brainstorm became his thesis project. And, his solution to a challenge in the world of theatre may end up as a product after graduation. Now that's computing in the arts.