# ILLINOIS INNOVATION
## PRIZE

New devices like the Kinect allow us to naturally interact with our computers by gesturing with our bodies. One large obstacle to these natural interfaces is that we are unable to feel virtual objects in the air. Rajinder's invention, AIREAL, allows users to feel physical forces in the air without requiring any instrumentation of the user. This technology enables new interactive experiences, such as movies and games that can deliver physical forces to a viewer and objects in their environment. When combined with a projector, virtual elements like a butterfly can be projected and felt on a person's body. Other applications include assistive technologies for visually-impaired users. Rajinder's research lies at the intersection of computer vision and human computer interaction and he focuses on creating new Augmented Reality experiences that blurs the line between our physical and virtual worlds.

## 2013 WINNER
# RAJINDER SODHI

PhD CANDIDATE COMPUTER SCIENCE

# ILLINOIS INNOVATION
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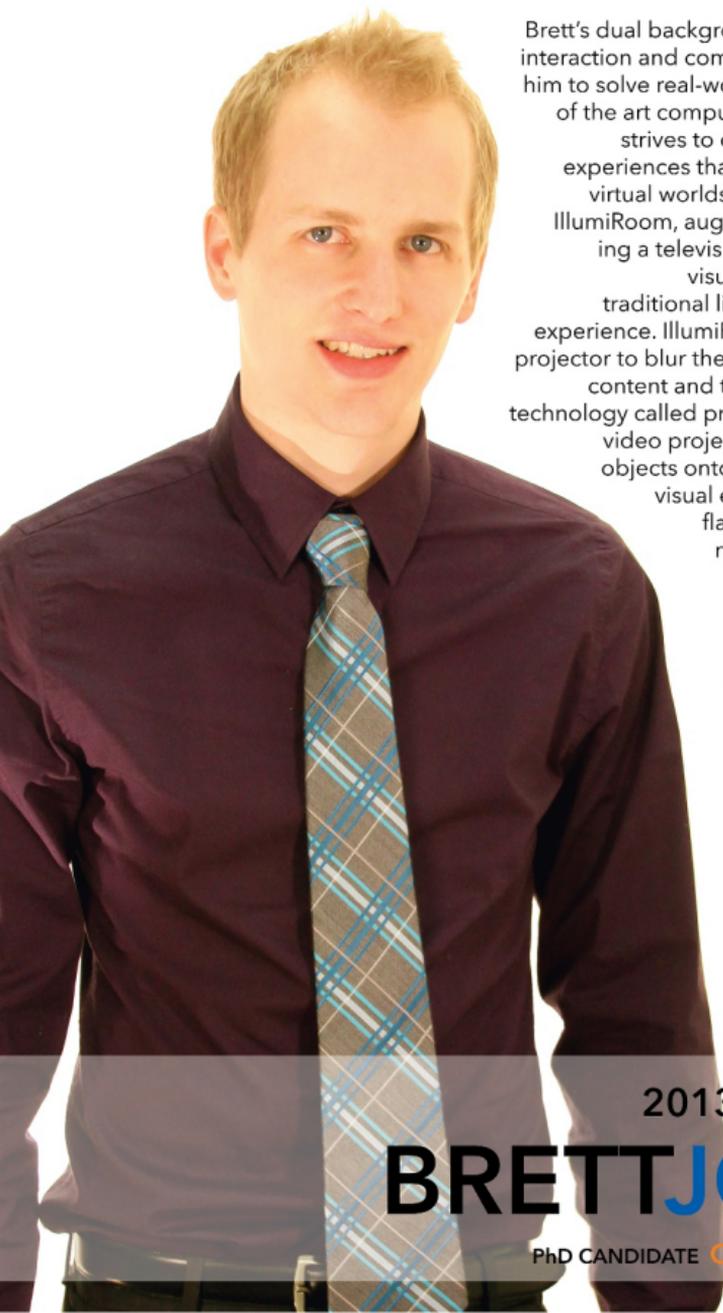
Brett's dual background in human computer interaction and computer vision has enabled him to solve real-world problems using state of the art computer vision techniques. He strives to create magical interactive experiences that merge the physical and virtual worlds. His most recent project, IllumiRoom, augments the area surrounding a television screen with projected visualizations to enhance the traditional living room entertainment experience. IllumiRoom uses a Kinect and a projector to blur the lines between on-screen content and the environment. It uses a technology called projection mapping, where video projectors superimpose virtual objects onto physical reality, creating visual effects on everyday, non-flat objects. Brett's research makes content creation for projection mapping cheaper and easier, turning projection mapping into a new creative medium that can be sure to bring magical experiences to advertising, hands-on education, theater, gaming and in-home computing.

## 2013 WINNER
# BRETT JONES

PhD CANDIDATE COMPUTER SCIENCE