

Science in Hollywood - Computer Modeling and Animation

Now casting: STEM experts

Many movies — not just animated ones — use computer simulations to create special effects.

“Clothing, skin, snow, water, smoke, fire — all kinds of things” are modeled with computers, Teran says. Creating real-looking effects “requires a ton of math and a ton of physics,” he says. Studying a STEM subject may seem like an unusual way to get involved with movies. However, Teran says Hollywood is showing strong demand for experts who studied math or science in college. Their help is needed, and will continue to be needed, in creating ever more sophisticated effects.

“Look at *Shrek*, a movie from 10 years ago,” Teran says. “At the time, I thought it looked amazing. But I watch it now, and it looks worse than video games. So video games already look more realistic than older movies.”

That trend isn’t going to change. He worked on the animation in last year’s *Big Hero 6*. And he’s already hard at work on Disney movies coming out this year and next — though he’s not allowed to talk about them just yet. All he can say is that the movies will require even more complicated calculations than *Frozen* did. Eventually, animation will become indistinguishable from live action.

“The people will look like real people,” he says. “You won’t be able to tell the difference.”

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