

ENTERTAINMENT ENGINEERING AT MIZZOU

Groundwork for the feature film activities at Mizzou was established in 2000 in the College of Engineering based on Prof. Jeffrey Uhlmann's proposal that technology and engineering expertise, combined with the wide range of multidisciplinary talent available on campus, could be applied to create films capable of competing effectively against high-budget competition from Hollywood. The rationale for viewing filmmaking as an engineering exercise is that almost everything that distinguishes a film production from the production of a theater play involves the use of technology, e.g., cameras, audio recording, and computers for post-production editing and visual effects. Determining the most effective algorithm for shooting a film to satisfy the myriad constraints imposed by the budget, time availability of personnel and resources, etc., is truly an engineering problem.

Previously, only graduate programs like the USC's Institute for Creative Technologies and Carnegie-Mellon's Entertainment Technology Center trained engineering skills required to pursue careers in Hollywood "magic factories".

The biggest difference between the media engineering programs at other schools and the one at the University of Missouri is, of course, Uhlmann's unbelievably ambitious on-campus movie production.

- *MovieMaker Magazine* (2005)

The first film production, *Mil Mascaras vs. the Aztec Mummy*, was produced by Prof. Uhlmann and fellow engineering professor, Kannappan Palaniappan (Pal). Because the film production was managed out of the College of Engineering, the overall activity encouraged a diverse collaboration among students and faculty from across campus. One of the first students to become involved was Mike Sullivan, who was working on his undergraduate degree in art while also taking computer science courses. During the process of making the first film he had a unique opportunity to combine his interests in art and computing. Since graduating he has become a recognized software design expert and is co-author of the book *The Art of Lean Software Development*.



Mil Mascaras & Mike Sullivan

"I attended Mizzou looking for an opportunity to pursue both art and science. To scratch that itch I pursued a bachelor's degree in both Fine Art Ceramics and Computer Science. At times during my undergraduate studies it felt like I was attending two separate universities because there was little opportunity for students from the arts to interact with those pursuing engineering or science degrees. Through the film productions Mizzou students had much more opportunity to work together, something which provides invaluable real world experiences and connections.

I went on to get my Masters in Computer Science at Mizzou, and I currently work as a software developer at Boeing in St. Louis. While pursuing my degrees I was lucky enough to get the opportunity to work on the films from the very beginning. I worked as the Art Director on the Aztec mummy film, which allowed me to use skills from both of my fields of interest. The organizational and people skills I learned while working on the films at Mizzou have given me a leg up in my career as an engineer."

- Mike Sullivan

The success of this activity prompted students to request a formal film degree program at Mizzou. In 2005 a minor in Film Studies was established by Prof. Roger Cook, and in 2006 he and Prof. Uhlmann established a film production class to support the making of *Academy of Doom*, the second Mizzou film starring Mil Mascaras. This class was taught by Chip Gubera, who also directed the film. One of the students in that first class, Doc Crotzer, worked on the final shoot of *Mil Mascaras vs. the Aztec Mummy* and throughout the filming of *Academy of Doom* as part of the class. Subsequently he moved to Los Angeles and was able to obtain coveted positions working with A-list filmmakers before becoming editor for the blockbuster hit television series, *Glee*.



Doc Crotzer (MU class of 2006)

“One of the great things about the film program at Mizzou was that it gave me hands-on experience. There are lots of great books about filmmaking, and you read them and you get excited about it, but it's all hypotheticals. Until you actually get your hands dirty in it, you don't really fully experience what it's like to make a movie. And getting to do that while I was still a student, and feel that collaboration with other people and the excitement of creating something together, really planted a seed in me that has been there ever since, and I don't think it will ever go away.

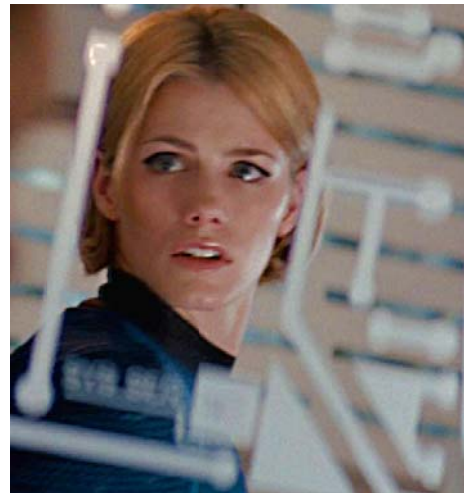
When I was a student at Mizzou I took a film production class. Most of the time was spent on set nights and weekends shooting *Academy of Doom*. And I think for myself and most of my classmates, if not all of them, it was our first real exposure to a professional film set. It's great on weekends with your friends to go out and shoot short films, and you certainly grow as a filmmaker doing that, but it's also important to have the exposure and the immersion into a professional filmmaking environment to see all the different parts that go into making a movie.

I think it was really eye-opening for me because I realized what a collaborative art filmmaking truly is. And subsequently after that experience I started to look at all the different jobs people have and I said okay, well, editing is a component of this that really interests me, and I think this is the part of filmmaking that I'd like to try and get into after I graduate.”

- Doc Crotzer (2011)

Another student who participated in the 2006 production was Jolene Kay, who was pursuing a Theatre degree with aspirations of becoming a professional actress. Unfortunately, breaking into Hollywood has odds comparable to winning the lottery, and the catch-22 is that experience and credits are necessary to get jobs. With that in mind she attended an open casting call for *Academy of Doom* and scored a principal role.

Although it was not in the same league as a major Hollywood film, *Academy of Doom* was a feature film that played at prominent international festivals, and her experience and lead credit paved the way for her to land high-paying jobs in Hollywood as an actress in high-profile commercials (e.g., for Coca-Cola, below left) and the occasional A-list Hollywood film (e.g., *Star Trek*, below right):



"I had my first real exposure to acting on film in *Academy of Doom*. It was nice to be educated as far as what "back to one" means, just how long you should wait after action is called before you start doing your thing - *and it was really fun learning to use a flamethrower!*

I always do remember that it started at MU, and it started on *Academy of Doom*, and I've always been very grateful for the journey."

- Jolene Kay (2011)

Many other students have leveraged their experiences working on Mizzou film productions to establish highly successful careers in computer science, IT, engineering, journalism, multimedia, and of course filmmaking.

We expect similar success for students who participate in the making of future films* such as *Aztec Revenge*, *Mission*, *Kwandro*, *Mil Mascaras: Psychedelia*, *The Lab*, *Ring of Death*, *Luctor's Revenge*, *Kwandra Unleashed*, *Diary of Dracula*, *Faces of Evil*, *La Torcha vs. the Demons from Hell*, *Return of the Jewel*, *Birth of a Monster*, *Micro Vampiro*, *Voodoo Resurrection*, *The Golems*, *Curse of the Moirai*, *Roots of Evil*, *IDAKTOR!*, *Ring of Zombies*, *Future Past?*, *Nazi Revenge*, *Luctor vs. the Aztec Mummy*, and *Death of a Thousand Masks*.

*Another planned film, *Argozan the Unbelievable*, is likely to be replaced with a completely different film that features either Raveniqua or Logico. An episodic television series, *The Lucha Files*, is also under consideration. It is hoped that many of these projects will involve collaborations with other academic institutions around the world.