

ENVISIONING A



PHOTOS COURTESY OF RACHEL NHAN '11

DIFFERENT PATH

Aggies utilize visualization in variety of fields

BY ANNIKA ROBERTS '22

Feature films at big-name studios attract a high level of recognition, but animation isn't the only industry hiring Aggie vizzers. These graduates have pioneered careers in biomedical imaging, disaster response training, user interface design and many others.

Tim McLaughlin '90, interim dean of the Texas A&M School of Performance, Visualization & Fine Arts, said visualization is "becoming a really important language for a lot of different disciplines," even in cases where "it's not as flashy."

At its core, visualization is "using images to tell stories," according to DreamWorks animator Dave Walvoord '93. "Now, what we do in feature animation is we tell stories about characters, plots; but if you're getting an MRI, that can tell a story, too — a whole different kind of story."

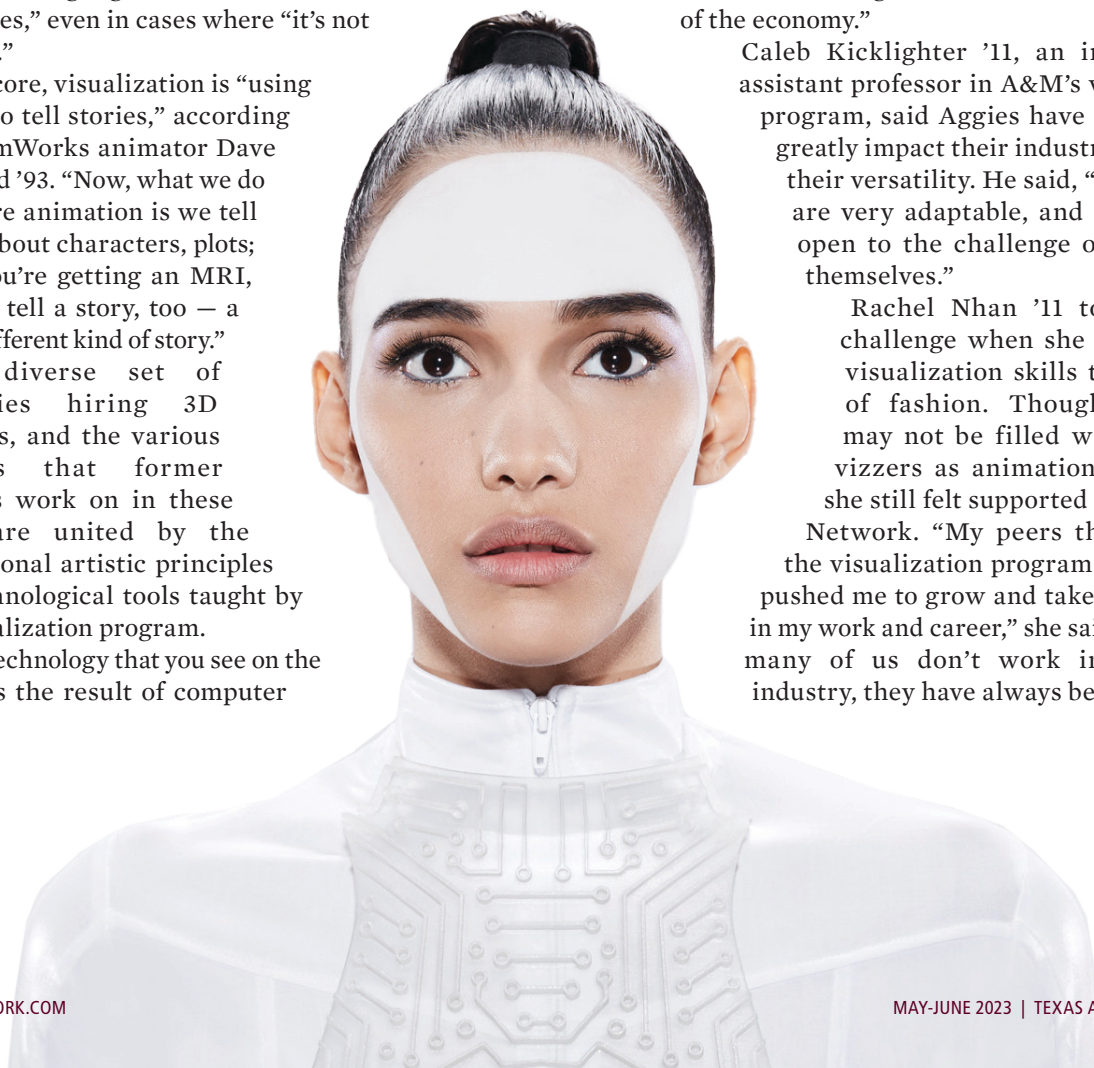
The diverse set of industries hiring 3D modelers, and the various projects that former students work on in these roles, are united by the foundational artistic principles and technological tools taught by the visualization program.

"The technology that you see on the screen is the result of computer

graphics, largely. You can turn it and pivot it toward a theater play. You can turn it and pivot it toward a music performer who is trying to reach remote audiences with their performance through remote means. You can turn it and pivot it toward training for first responders or emergency management," McLaughlin said. In the visualization program, "what we're doing is looking at these performance immersive environments and how all of this comes together to serve different sectors of the economy."

Caleb Kicklighter '11, an instructional assistant professor in A&M's visualization program, said Aggies have been able to greatly impact their industry because of their versatility. He said, "our students are very adaptable, and they're very open to the challenge of improving themselves."

Rachel Nhan '11 took on this challenge when she brought her visualization skills to the world of fashion. Though her field may not be filled with as many vizzers as animation, Nhan said she still felt supported by her Aggie Network. "My peers that I met in the visualization program have always pushed me to grow and take bigger steps in my work and career," she said. "Although many of us don't work in the same industry, they have always been a creative





inspiration for me in how they have explored their own fields and achieved many successes along the way.”

Currently an apparel designer at Asics, Nhan’s nontraditional background in technology allows her to make innovative contributions. “3D technology has really grown in many fields, and apparel design is no exception,” she said. “Many companies now use visualization software to design virtual clothing samples that cut lead times in half and significantly reduce the resources used to develop new products.”

Nhan first applied her visualization skills to apparel in fashion school. “Because I didn’t have as much sewing experience as my classmates at the time, I decided to lean on my 3D skills I previously learned at Texas A&M,” she said. This led her to create the “entity dress,” still her favorite project to-date. “I sculpted the neck piece digitally, 3D printed it in the school’s lab, assembled the parts, and painted it to match the dress I had sewn to complement the design.

“The design means a lot to me as a representation of the skills I was combining in both 3D technology and traditional craftsmanship. It was a big risk to create it at the time, but it really set the path for my future work and reminds me to keep challenging myself.”

One of Nhan’s earlier pieces, the “entity dress” was created for her thesis fashion show at the Fashion Institute of Technology. According to Nhan’s website, rachelnhan.com, “The theme of the show, *Mad Max* meets Marie Antoinette, pulled elements from both punk fashion and French elegance.”

Visualization skills are also in demand at global security and aerospace companies like Lockheed Martin Corp. Mat Sanford ’05, a senior design engineer at Lockheed, said, “Roles like these are definitely on the rise across the broad technology sector. It is becoming increasingly more important to convey technical concepts in an engaging way, and it takes a unique skill set to do it effectively.”



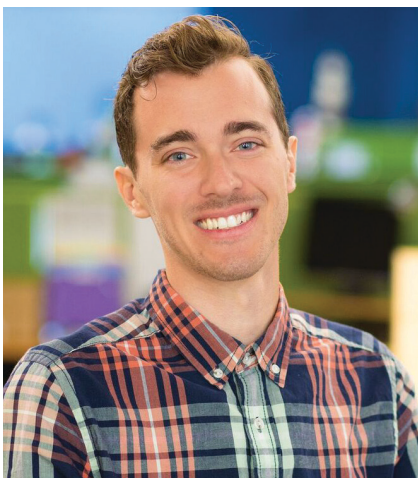
IMAGE COURTESY OF WARNER BROS. WORLD IN ABU DHABI

Using his visualization skills, Primm designs ride vehicles for attractions like the Flintstones Bedrock River Adventure at Warner Bros. World in Abu Dhabi, above, and ensures that the creative intent is fulfilled in the ride’s final production.



PHOTOS COURTESY OF RACHEL NHAN '11

Nhan used 3D printing to create the black plastic collar of the “entity dress,” above, and the translucent clutch and cuffs from her “futura” collection, at top left.



Kevin Primm '11

Sanford described himself as “both an artistic and technical person.” With a background in computer engineering, Sanford enrolled in the visualization graduate program to do more artistic work. He began his visualization career at DreamWorks Animation, but he said, “When my family decided to move back to Texas, I found this position at Lockheed Martin was the perfect combination of technical and artistic skills for me.”

Lockheed employs designers to “take technical data of any kind ... and create informed visualizations that help convey technical concepts to a wide variety of audiences,” Sanford said. This could include visualizing engineering simulations, flight test results, a short film about a new product or a piece of artwork for a building. Sanford’s favorite part of this role is contributing to projects “that are extremely interesting and make a real world impact,” he said.

Another innovative vizzer is Kevin Primm '11, who’s spent his career using visualization to

design theme parks and other immersive experiences. Primm described himself as a “jack-of-all-trades,” who didn’t think he would feel quite at home in the animation industry. He attended a graduate program at Carnegie Mellon where professors opened his eyes to “this location-based theme park industry. And it’s just been a whirlwind of amazing things. I had no idea that my skill set was even relevant to that industry.” Primm was excited to discover that “they needed people like me.”

In other industries, visualization work can tend to stay on screens, but Primm’s projects become real, physical environments for guests around the world. He said, “to see my stuff go from a pencil sketch to my screen, and then to be able to see it get built, and then for me to see guests and families and people riding on the rides I designed and walking around the parks and seeing it all around you — it just jumps out of the screen and becomes real life.”

Primm has contributed to multiple rides at home and abroad, including Scooby Doo: The Museum of Mysteries and The Flintstones Bedrock River Adventure, both in Warner Bros. World in Abu Dhabi, and Hagrid’s Magical Creatures Motorbike Adventure in The Wizarding World of Harry Potter in Orlando.

Currently, Primm is involved with production for Universal’s Epic Universe, a recently announced theme park expected to open in 2025 in Orlando. The scope of his work includes design for new rides, food and beverage areas, retail areas and set modeling.

The role of 3D modeling for immersive environments is growing, Primm said. “We’re constantly in need of more and more people.”

—Cait Shields '11 contributed to this reporting.



Mat Sanford '05



IMAGES COURTESY OF WARNER BROS. WORLD IN ABU DHABI

Primm designed the ride vehicle model for Scooby Doo: The Museum of Mysteries, which was later installed at the Warner Bros. World in Abu Dhabi.

