



Fulbright winner Jessica Baron travels globe for computer graphics research

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Jessica Baron has traveled the globe and worked as an intern for some of the world's top video game, animation and visual effects companies since arriving at Clemson University three years ago.

And she's going to have to pack her bags again in January.

Baron, a candidate for a Ph.D. in computer science, is planning to head to an elite Swiss university to advance her research after receiving a grant through the Fulbright U.S. Student Program.

She will go to Ecole polytechnique fédérale de Lausanne (EPFL), where she will work with Assistant Professor Wenzel Jakob. Baron's research focuses on modeling the appearance of feathers for computer graphics.

"All around it is a really exciting opportunity that fits into my interests," she said. "I will be able to move forward with my research, while also moving forward with my personal interest to travel, particularly to Europe."

Baron, a graduate of Rockingham Early College High School, arrived at Clemson in 2017 as a master's student. She received her Master of Science in Computer Science in 2018 and stayed at Clemson to pursue her Ph.D. under Eric Patterson, an associate professor of visual computing and the associate director of Digital Production Arts.

Baron's Fulbright award is the latest in a string of remarkable internships and study-abroad experiences she has had since joining Clemson.

She currently serves as rendering programming intern at Epic Games, a video game software developer and publisher that is based in Cary, North Carolina and counts "Fortnite" among its popular titles.

Baron was a RenderMan intern for Pixar Animation Studios in Seattle during the summer of 2019. During Clemson's 2018 summer break, she traveled to New Zealand for a software engineering internship at Weta Digital, an Academy Award-winning digital effects studio known for its work on "The Lord of the Rings" movies.

Baron began her feather research in 2017 at Germany's Cologne University of Applied Sciences (TH Köln), where she was a UAS7 graphics research intern.

In addition to her travel and internships, Baron has taught Digital Production Arts (DPA) classes at Clemson. She is also working with Adam Smith, curator of the Bob Campbell Geology Museum, to better understand the appearance of dinosaur feathers.

"Ultimately, I'd like to mathematically describe how light interacts with feathers based on their micro- and nanostructures and adapt that to visualizing dinosaurs," Baron said.

Baron started her Clemson journey with the School of Computing, home of the Visual Computing Division and the Digital Production Arts program, on the main campus and has since moved to the recently developed Zucker Family Graduate Education Center in North Charleston. The community she has found there "feels like a close-knit family," she said.

"Since January 2017 when I started at Clemson, it's been non-stop new experiences," Baron said. "Every semester is different. I'm still learning so much."