BUILDING A FEATHER TOOL FOR PRODUCTION AT WETA DIGITAL

presented by

Jessica Baron
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Abstract:
During her internship with Weta Digital, the visual-effects studio that has worked on film projects such as Avatar and The Lord of the Rings series, Jessica Baron has helped begin the development of a new, in-house software tool for creating feathers which she has named Apteryx. Her work focused on gathering requirements, understanding the biology of feathers, designing and implementing code, and testing with potential show assets. The feather biology drives the development of Apteryx particularly in the structure of individual feathers, how this structure changes over the various feather types, and the layout of feathers based on their types.

Bio:
Jessica Baron is currently finishing a Master-of-Science degree in Computer Science with a concentration in Visual Computing at Clemson University and was an Intern in Software Engineering at Weta Digital, working with the “Fur and Feathers” team and starting the development of Apteryx. Her thesis focuses on the geometry and structure of feathers, and she has begun discussions with paleontologists and raptor centers on feathers. Jessica has also been accepted into Clemson’s Ph.D. program in Computer Science and has begun plans on her dissertation to be a continuation of her Master’s thesis shifted towards designing reflectance models for feathers based on their biological structure. Prior to joining Weta Digital’s team for a few months, she has done a graphics research internship at TH Koeln in Germany and has researched with Visual Computing’s Countenance Lab on 2D and 3D facial analysis, involving work on automatic re-topology of human-face meshes and the creation a geodesic dome inspired by ICT’s LightStage.

Friday, August 24, 2018 @ 2:30 pm      McAdams Hall, Room 119

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