# VICTORIA KATHERINE MCGOWEN

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## SKILLS

Psychophysical Research
Motion Capture
Faceshift
Faceware
Phasespace
Virtual Reality
Microsoft Kinect v2
3D Graphics
Broadcast Graphics
User Interface Design
Film Editing
Python
Java
C#
OpenGL
OpenCV
Mel
Matlab
Git

## OBJECTIVE

A full-time job in a Camera, or Computer Vision and Computer Graphics research field.

## EDUCATION

**Rochester Institute of Technology, Rochester NY —**
**Motion Picture Science BS and Computer Science MS**
Bachelor of Science Degree May 2016
Masters of Science Degree Expected May 2017

## EXPERIENCE

**Camera Hardware Engineer Intern, Apple Inc;**
**Cupertino, CA — May 2016-August 2016**
Created automation for internal tools with serial communication, server networking, and object orientated programming. Assisted in image quality studies on software and hardware.

**Software Engineer Intern, Fox Networks Group;**
**Los Angeles, CA — June 2015-August 2015**
Contributed to the workflow for on air graphics for sports broadcast of the Woman's World Cup and National Geographic channels. Created a graphical user interface prototype for on air graphic testing.

**Research Assistant at Rochester Institute of Technology;**
**Rochester, NY — September 2012-current**
Assist on projects and experiments. Program and work to establish an integrated full-body motion capture pipeline for current and future work. Coordinate meetings, experimental data collection and have supervised interns. Working on creating a packaged motion capture system for students to use.

## PROJECTS

**Farewell at Dawn: A Virtual Theatre Experience — December 2015-Present**
Building two three-Kinect systems for a live dance performance. Responsible for the networking and interfacing of the Kinects to the final rendered real-time animation, and creating a realistic particle system to represent the dancers. This project has been shown during the Rochester Fringe Festival, the open houses at Nazareth College, and during the first ever annual Virtual Reality Symposium at Rochester Institute of Technology.

**Streamline Blend Shape Creation — August 2015-August 2016**
Creating an application that would allow students to provide an unrigged face model and output the required blend shapes to use with facial motion capture data. This project resulted in a toolbar for Maya with scripts written in Python. Presented a poster

on this project at the ACM SIGGRAPH conference in July 2016 and was a semi-finalist in the undergraduate student research category.

**Virtual Reality Cinema — September 2014-September 2015**
Took roles of Team Manager and Lead Software Engineer. Worked on a workflow for live action virtual reality story telling, and focused on the image stitching and Oculus Rift integration aspects of the project. Project was exhibited at RIT's ImagineRIT 2015 and 2016 festivals. A documentary was also created for this project and won Best Student Documentary at the Society of Motion Picture and Television Engineers Conference in October 2015.

## COURSE LIST INCLUDES

Film Video Materials and Technology, Motion Capture Exhibition, Post Production Technology, Digital Cinema, Foundations of Algorithms, Computer Graphics, Global Illumination, UX/UI Design, Interactive Music Video Production, Vision and Psychophysics, Fourier and Linear Mathematics, Radiometry, Geometric Optics, Computational Geometry, Digital Image Processing, Computer Vision, Colour Science, Japanese Language, French Language, University Calculus, and University Physics

## HONOURS AND AWARDS

**ACM Student Research Competition Undergraduate Semi-Finalist — 2016**
Undergraduate thesis work was chosen by industry professionals to present at the poster forum at the 2016 SIGGRAPH conference in Anaheim CA.

**Louis F. Wolf, Jr. Memorial Scholarship Award, Society of Motion Picture and Television Engineers — 2014**
Annual scholarship given to students studying motion picture and television degree with an emphasis in technology and research.

## VOLUNTEER

**Student Volunteer, ACM SIGGRAPH — August 2014 - August 2016**
Helped support the ACM SIGGRAPH North America conference through aiding in registration booths, set-up and tear down, performing demos, directing visitor traffic and acting as guides for visitors with questions or in need of assistance.

## REFERENCES

| | |
|---|---|
| Joe Geigel, Advisor | Billy Terrell, Camera Hardware Manager |
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| jmg@cs.rit.edu | Apple Inc. |