

## Education

University of Illinois at Urbana-Champaign	Cumulative GPA: 3.9/4.0
Bachelor of Science in Computer Science and Psychology	May 2015
Dean's List / James Scholar / High Honors / Cum Laude	
Master of Science in Computer Science	May 2016
Thesis: Augmented Reality Persistent Annotation	

## Professional Experience

**University of Maryland UMIACS - Dr. Amitabh Varshney** Aug. 2016 - present

- Developed VR application for language acquisition in cooperation with UMD CASL
- Implemented ambisonic audio decoder to recreate spatial audio recordings in VR
- Optimized FFmpeg decoding scheme to enable fast seeking between multiple videos
- Developed streaming workflow supporting MPEG-DASH playback

**Virtual Reality Teaching Assistant - Dr. Steve LaValle** Jan. 2016 - May 2016

- Designed assignments and machine problems that incorporated core VR concepts
- Guided and advised VR projects from a pool of 33 student project groups

**Skycatch - Computer Vision Engineer Intern** Jun. 2015 - Aug. 2015

- Developed proprietary computer vision algorithm to refine point cloud; achieved 10cm accuracy in georeferenced point cloud model - patent pending
- Optimized structure from motion pipeline for large scale datasets up to 800 images

**University of Illinois CITES ICS - Technical Consultant** Oct. 2012 - Jan. 2014

- Distributed software bundles through Novell ZENworks to 800+ lab computers
- Updated system images routinely for lab rebuilds and resolved software malfunctions

**Blue Chips Technology Co., Ltd - Software Development Intern** Jul. 2013

- Developed C-based network socket under Objective-C application structure
- Accessed IOS native code on Javascript using Apache Cordova plugin

## Research Experience

**Graduate Research Assistant - Dr. David Forsyth** Aug. 2015 - May 2016

- Developed augmented reality annotation system on Project Tango tablet to create persistent annotation in any environment
- Established collaborative platform for multiple devices to operate synchronously
- Conducted user study to verify productivity increase on annotation tasks

**Undergraduate Research Assistant - Dr. Golparvar-Fard** Jan. 2014 - May 2015

- Built web application to register image to 3D model with user-guided inputs
- Implemented mesh-assisted structure from motion using registration as constraints for bundle adjustment

## Skills

- C++ / Java / Python / C / Matlab / HTML / Javascript / PHP / CSS
- FFmpeg / OpenMVG(contributor) / Ceres-Solver / OpenCV / Unity