

## EDUCATION

**Master of Science (M.S)** August 2017  
VISUALIZATION (expected)  
Texas A&M University

**Bachelor of Engineering (B.E)** 2009  
COMPUTER SCIENCE & ENGINEERING  
PES Institute of Technology

## SKILLS

### Software

Houdini | Maya | MARI | Photoshop | Unreal | Unity

### Languages

C++ | OpenGL | Python | VEX | Processing | HTML | CSS | JavaScript

### OS

Windows | Linux | Mac

## PROFESSIONAL EXPERIENCE

**FX Intern** June - August 2016  
FRAMESTORE | New York, NY

- Created FX elements using Houdini for a commercial as well as an in-house animated short
- Built a procedural modeling tool to create static snow and icicles for set dressing
- Added functionality to existing pipeline tools and digital assets using VEX

**FX Lead** May - August 2015  
TEXAS A&M UNIVERSITY  
Summer Industry Course with Walt Disney Animation Studios

- Created a 30 second animated short under the guidance of artists from Walt Disney Animation Studios
- Responsible for creating FX elements in Houdini
- Assisted in modeling and texturing of few props using Houdini and Maya

**Web Development Intern** April - May 2014  
QUADWAVE CONSULTING

- Developed responsive websites for desktop, tablet and mobile use
- Redesigned UI for various existing company projects
- Generated marketing content for use in company projects and activities

**Graphics Programmer Intern** February - April 2013  
VIRTUAL LOGIC SYSTEMS

- Developed tools for a real time welding simulator
- Created props and relevant effects

## ADDITIONAL EXPERIENCE

**Graduate Assistant - Teaching** Sept. 2016 - Present  
TEXAS A&M UNIVERSITY

- Responsible for grading assignments and projects for VIST 270 (Computing for Visualization 1)
- Responsible for helping students solve programming issues and conducting information sessions

**Graduate Assistant - Research** January - May 2016  
TEXAS A&M UNIVERSITY

- Assisted on a NSF funded Augmented Reality project based on eye tracking
- Created scripts in Matlab for testing in Unity

**Graduate Assistant - Teaching** Jan - December 2015  
TEXAS A&M UNIVERSITY

- Responsible for grading essays for VIST 375 (Foundations of Visualization)

## THESIS

### Art directable phase change of fluids

Research and Development of a plugin for Houdini that allows artists to control fluid behavior such as melting (ice, chocolate, etc.) and hardening (ice, lava, etc.)

## RELEVANT COURSEWORK

Physically Based Modeling | Digital Image Processing | Image Synthesis | Rendering and Shading | Interactive Virtual Environments | Computer Graphics | Data Structures | Analysis of Algorithms | Object Oriented Programming using C++ | Software Engineering

## PROJECTS

### Flocking Simulation using Processing

- Developed a flocking simulation based on Craig Reynolds 1987 SIGGRAPH paper *Flocks, Herds, and Schools: A Distributed Behavioral Model*
- Implemented multiple flocks in one simulation

### Lava Simulation using Houdini

- Based on custom temperature and variable viscosity
- Shader development for Mantra renderer

### Ray Tracer using C++

- Implemented light sources (point, directional, spot) along with shading models (Lambert, Gooch)
- Other features include refractions, environment maps, normal maps, depth of field, etc.

### Tunnel Tracks HDA using Houdini

- Created a HDA for Unreal Engine that generates a set of tunnels and tracks based on a curve