

# Chaitanya Shah

Creative Technologist, Emblematic Group

AR/VR/XR creator with a curiosity exploring unusual augmentation of everyday things. Creating reality in virtuality.

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## EDUCATION

### MS in Multimedia & Creative Technologies

University of Southern California, USA

01/2017 – 12/2018

3.51/4.0

Courses

- Computer Graphics
- Digital Image Processing
- Immersive Audio Engineering
- Animation & Simulations
- VR Journalism
- Multimedia Data Compression

### BE in Electrical Engineering

Gujarat Technological University, India

06/2012 – 05/2016

8.91/10.0

Courses

- Micro-controllers
- Fundamentals of Algorithm
- Advanced Mathematics
- Computer Programming Methodology

## EXPERIENCE

### Creative Technologist

Emblematic Group ✎

11/2017 – Present

Los Angeles, USA

Unity | ThreeJS | Maya | Prototyping | Designing

- Conceptualizing initial story concepts and scenes in AR/VR by prototyping potential interactivity of the experience.
- Co-developed AR building pipeline for a multitude of platforms including ARKit, ARCore, MagicLeap, and HoloLens which catalyzed project setup, development iteration, and testing.
- Drafted embodied cognitive interactions for immersive stories in AR/VR under Nonny de la Peña's guidance.
- Engineered artist-friends tools and classes in Unity boosting iterative development.
- Prototyped VR authoring tool, researched webAR, developed volumetric video tools and visuals, and engineered interactive VR/AR experiences.

### Advisor

JOVRNALISM - USC ANNENBERG

01/2019 – Present

Los Angeles, USA

Prototyping | Journalism | Planning

- Expert in residence for an aspiring group of journalists, designers, and engineers in analyzing the project development process.
- Counseled on immersive design process, interactivity and engineering execution.

### Research Assistant

Marshall School Of Business, USC

01/2017 – 05/2017

Los Angeles, USA

Python | Web Scraping

- Carried out web scraping using Python as a part of mobile AppStore research project under Prof. Nandini Rajagopalan.
- Built various data viz related to the dataset.

## SKILLS

Unity/C#

ThreeJS

JavaScript

C/C++

Python

WebXR

ARCore/ARKit

HoloLens/MRTK

SparkAR

Reality Composer

Lens Studio

Adobe Creative Suit

UI/UX for XR

AR/VR Development

Rapid Prototyping

Maya

Perforce/Git

Shader Developmet

Maquette

## PROJECTS

REACH WebXR platform (08/2018 – 05/2019) ✎

- Built API for VR Web editor, in-editor interactions and VR Export pipeline. Utilized A-Frame and ThreeJS to build editor based components as well as interactions. Researched in-editor user experience system and improved by user testing
- Prototyped webAR, integrated volumetric video playback and optimized for mobile devices.
- Led the team of two for developing animation and transitions toolkit for the platform. Expanded that toolkit for controller interaction in VR.
- Engineered 3D asset management, along with data serialization for project loading as well as exporting.
- Hundreds of students and newbies to VR are using it to develop their VR Stories. A 10-year-old built a Star Wars scene on REACH using free assets in 15 min.

Stanley Hayami VR: Japanese American National Museum (02/2019 – Present)

- Tech Designed narrative story script into VR story on Unity Platform and SteamVR SDK. Integrated and optimized Quill art-form, and volumetric videos.
- Engineered core classes for scene management, animation and interactivity. Scripted classes for integrating components to Unity Timeline.
- Created multiple prototype scenes for story designing, VFX as well as for finalizing the script.
- Optimized the performance after deliberately observing profiler data of memory usage, garbage collection and draw calls.

5G Voyager - AT&T (09/2018 – 12/2018)

- Developed AR app for Andorid platform by integrating machine learning in Unity, showcased at Snapdragon Summit for AT&T.
- Integrated machine learning model using TensorFlow Lite in Unity Game Engine. Used DeepLab model for human segmentation.
- Wrote shader program for processing segmentation data and combining virtual content. Optimized the whole workflow brining FPS from 5 FPS to 40 FPS.

Homeless Realities AR (08/2018 – 12/2018) ✎

- Directed XR experience for mobile AR (Snap's Lens Studio) and Magic Leap (Unity 3D). Hijacked Snapchat platform for journalism storytelling
- Built and deployed four AR journalism stories as Snapchat Lens experience. Each story consisted of photogrammetry model, 360 videos and audio - all optimized to pack under 4 MB limit
- Delivered a modular template for anyone to build AR infographic stories
- Worked closely with journalists, filmmakers, homeless community organizations and people experiencing unstable housing to understand, design, prototype experience and develop the story

## CERTIFICATES / ACHIEVEMENT

Top AR Project - Creating Reality Hackathon ✎

Synthesis was awarded for the Top Project in AR as well as VR/AR-for-good categories. The project aimed at creating a synesthetic journey using HoloLens and Unity

LA Press Club Award - Homeless Realities ✎

Best Use of Social Media and Best Multimedia Package was awarded to Homeless Realities project at the 61st Annual Journalism Awards