



RESEARCH INTERESTS

Machine learning for 3D content generation
3D User Interfaces for AR and VR
3D Computer vision

WORK AND RESEARCH EXPERIENCE

University of California, Santa Barbara

2016 - Present

Graduate Student Researcher

- Content aware semantic inpainting and editing in projective space
- Voxel based 3D object generation from text using CLIP
- Wide area augmented reality study on effect if external lighting conditions
- Synthetic data generation for ML based 3d reconstruction algorithms
- Locomotion research for augmented and virtual reality
- Aerial image super resolution using GANs (UCSB Crossroads fellowship)
- Environmental aerial image to 3D using GANs (UCSB Crossroads fellowship)
- 3D reconstruction of surround view panoramas in VR

LogMeIn Inc.

Summer 2017 & 2018

Software Research Engineer Intern

- Parallax 3D display using subject tracking with Kinect
- AR Navigation for indoor buildings.
- Collaborative 3D architectural design in AR

AGIRA, Tehran, Iran

2014 - 2015

UX Designer, VR/AR developer

- AR museums information mobile app for Tehran municipality.
 - "Beautiful Tabriz" a 3D VR tour of landmarks for Tabriz municipality.
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SKILLS

3D Interactive development for mobile, desktop and XR in Unity. (C#, HLSL)
User experience research for 3D interfaces. (Study design, data collection and analysis)
Realtime and offline rendering algorithms. (Physically based rendering, path tracing, raymarching)

Machine Learning (Tensorflow and PyTorch)

Generative Models (GANs, VAEs and transformers)
Inverse rendering (Tensorflow graphics and Pytorch3D)

3D & Multi Media

3ds Max (Modeling, Rendering and Animation)
Computational 3D modelling in Houdini
Adobe Creative Suite (Ps, Ae, Pr)

EDUCATION

PhD in Media Arts and Technology

2015 - Present

University of California Santa Barbara

MFA in Industrial design (HCI Concentration)

2013 - 2015

University of Tehran School of Fine Arts, Tehran, Iran

PUBLICATIONS

Using Synthetic Data Generation to Probe Multi-View Stereo Networks. Acharya, P., Lohn, D., Ross, V., Ha, M., Rich, A., Sayyad, E., & Höllerer, T. **ICCV 2021**

Walking and Teleportation in Wide-area Virtual Reality Experiences - Sayyad, E., Sra, M, and Höllerer, T. **ISMAR 2020**

PanoTrace: interactive 3D modeling of surround-view panoramic images in virtual reality. Sayyad, E., Sen, P., & Höllerer, T. **VRST 2017**