

Jack TsungYu Tsai

Software Engineer

☎ (626) 807-5969
🌐 <http://jacktsai.me>
✉ jacktsai526@gmail.com

OBJECTIVE

To obtain a fulltime position as Software Engineer where I will contribute my skills and cross-functional experience to the fullest

EMPLOYMENT

- Stitchbridge, Inc.** *Lead Engineer / Technical Director* (Pittsburgh, PA) Jul. 2017 - Present
- Developing the proprietary software tool for fast building interactive live-action VR experiences
 - VR app dev across platforms: Rift, Vive, GO, Daydream, Gear VR, Windows Mixed Reality
 - Immersive VR film collaborating with Tribeca Film Institute and Google's daydream team
 - Building interactive VR experiences for education and Industrial training
- Oculus Research** *Software Engineer* (Pittsburgh, PA) Jul. 2016 - Jul. 2017
- Developed the functionality of the proprietary software and VR system
 - Integrated the research with sensors and VR system to explore the potential feature
 - Benchmarked the performance of the research for the next-generation product
- LOOT Interactive, LLC** *Software Engineer* (Los Angeles, CA) Summer 2015
- Game porting from PC to Console (PS4, PS Vita, Xbox) in Unity, C#
 - Altered game features and benchmarked the performance on multiple platforms
- Next Animation Studio** *R&D Engineer* (Taipei, Taiwan) Oct. 2009 - Jul. 2014
- Mobile apps development in Unity for 3d interactive animation and augmented reality
 - Augmented reality system for the real-time interactive animation in TV news
 - in-house game engine development with DirectX API
 - Realistic facial simulation system developed for production pipeline with motion capture data
 - Shader programming for Cartoon effects, Deferred rendering and BSP-tree with multithreading
 - Maya plugin development of character rigging and animating for the efficiency improvement

PROJECTS

- ARchitect** *Lead Programmer* (San Francisco, CA) Spring 2016
- AR application by using Structure Sensor by Occipital
 - 3D scanning for reconstruction and motion tracking in Objective-C, OpenGL ES
- Faceless** *Gameplay Programmer* (San Francisco, CA) Fall 2015
- Worked with Electronic Arts on a game on the Xfinity Games connected TV platform
 - Client-server communication between TV and mobile devices in Unity, C#, JSON, HTML5
 - Implemented Interactive mechanic design on different mobile devices (iOS/Android)
- Hypnos** *Programmer / Technical Director* (Pittsburgh, PA) Spring 2015
- Immersive VR experience in Unity, Oculus Rift, Gear VR, GoPro
 - Researched the latency and bottleneck of frame rate in video playback
 - VFX tool dev in MAYA and integrated the interactive mechanic in the hybrid scene in Unity

EDUCATION

- Carnegie Mellon University, Entertainment Technology Center (ETC)** (Pittsburgh, PA) May 2016
Master of Entertainment Technology
- National Taiwan University** (Taipei, Taiwan) Jun. 2008
Master of Computer Science & Information Engineering
Graphics research group, Communication and Multimedia Lab
- National Chung-Hsing University** (Taichung, Taiwan) Jun. 2006
Bachelor of Computer Science

SKILLS

- Programming** C#, C/C++, Python, JAVA, GLSL, HLSL, Objective-C, Cocos 2D, CUDA, HTML5, CSS, JSON
- SDK** Oculus SDK, OpenVR SDK, Maya API, 3ds Max SDK, Move.me SDK, Kinect SDK, V-Ray
- Tools** Unity, Unreal, Microsoft Visual Studio, Xcode, Maya, 3ds Max, MATLAB, OpenGL, OpenCV, Photoshop, After Effects