

Li-Che (Richard) Chien

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EDUCATION

University of Southern California (USC), California, USA Aug 2019 – May 2021

Master of Science in Computer Science (Multimedia and Creative Technologies)

- Scored GPA **3.89**

National Chiao Tung University (NCTU), Hsinchu, Taiwan Sep 2014 – Jun 2018

Bachelor of Science in Computer Science (Network and Multimedia Engineering)

- Scored GPA **4.0** in Major Field of study

SKILLS AND LANGUAGES

Familiar with: C/C++/C#, Java, Html/CSS/JS, Python, OpenGL, Physically-based simulation

Familiar Software/Platform Skills: Maya 3D, Unity, GameSparks AWS

PROFESSIONAL EXPERIENCE

Programming Intern, Activision Blizzard, CA, USA Jun 2020 – Aug 2020

- Researched on anatomy-based facial simulation using finite-volume method and blendshape-driven muscle model

Software Engineer, MitFun Co., Taipei, Taiwan Aug 2018 – Jul 2019

- Deployed backend server on AWS and web-based system using php, REST API, NoSQL

Virtual Reality and Computer Graphic Research Assistant, VIML, NCHC Jul 2017 – Dec 2017

- Created 360 panoramic movie shading system and interactive visualization on VR using Unity

Software Engineer Summer Intern, Cyberlink/Perfect Co., Taipei, Taiwan Jul 2017 – Sep 2017

- Researched on deep learning applied on real-time AR engine and optimization on software memory usage
- Implemented new features in YouCamMakeUp by Java, a global AR makeup app. over 600 million downloaded

PROJECTS

Elastic object simulation, USC Jan 2020 – Feb 2020

- Interactive elastic object simulation with force integrators on mass spring system using C++, OpenGL

Aurora Rendering on Physically-Based Rendering, USC Oct 2019 – Jan 2020

- Physically-based aurora rendering with photon mapping, shadow ray tracing using OpenEXR

Multimedia Queries of Video Analyzing, USC Oct 2019 – Jan 2020

- Devised video similarity comparison algorithm using color content, motion vector and sound PCM in C++, OpenCV

Machine Learning on Motion Capture, USC Sep 2019 – Jan 2020

- Direct research on motion capture with ML/OpenCV, applying training model to transform marks to generate Maya 3D skeleton

Interactive Image Streaming Processor, USC Sep 2019 – Oct 2020

- Interactive image streaming using DFT or masks/filters in JPEG encoding standards using C++

Fluid Interaction Simulation, NCTU Apr 2018 – Jul 2018

- Researched in Navier-Stokes and SPH liquid simulation with external force in particle and marching cube in C++, OpenGL

Skeleton Kinematics Simulation, NCTU Feb 2018 – Apr 2018

- Implemented forward/inverse kinematics on human rigging body using C++, OpenGL

360-Degree video viewer on HTC Vive, VIML, NCHC Jul 2017 – Dec 2017

- Established a panoramic VR system where 360-degree video was textured and real-time rendered using texture mapping and shaders on Unity - of iFlyover, a governmental cloud-based visualization system integrated with 3D GIS
- Poster at NVIDIA's GPU Technology Conference (GTC) 2018 in Taipei

Planar Reflection and Refraction Appearance Simulation, NCTU Feb 2018 – Apr 2018

- Hair and mirror simulation using vertex, fragment shader and illumination scene with phong shading on OpenGL engine

Presentation and Simulation of DNA in Virtual Reality, NCTU Sep 2016 – May 2017

- Created interactive, educational VR program in which DNA 3D Model and its reaction are presented and visualized

CERTIFICATION

Autodesk Certified Professional: Maya Jul 2019

AWARDS

WinFun Capital High Academic Performance Scholarship Jun 2018

Phison Electronics High GPA Full Academic Year Scholarship Sep 2017 – Jun 2018

Taiwan Ministry of Science and Technology College Research Award Jul 2017 – Feb 2018