

YIFAN SONG

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Computer science undergraduate interests in CG and CV and more.

EXPERIENCE

Co-founder and Software Engineer of RhythMo

Jan 2021 – Present

RhythMo is a new technology company focused on development of lightweight virtual digital human generation and driving technology. I am both a co-funder of the company and software engineer researching and developing the new CPU only or portable device based monocular RGB motion capture and driven solution.

Internship as Computer Graphics Engineer in Netease Games(Guangzhou)

Jul 2021 – Sept 2021

Netease Games is an affiliate of NetEase (NASDAQ: NTES). NetEase Games is the 2nd largest game developer worldwide by revenue.

Research Assistant in VDI center

Dec 2020 – Present

Visual and Data Intelligence Center focus on computer vision and computer graphics. My current topic in VDI is about monocular full body human motion capture.

WORK PROJECTS

RhythMo Monocular RGB Based Motion Capture

Jan 2021 – Present

- Only CPU or single iPhone needed for over 25fps motion capture.
- Able to drive multiple popular human model type including fbx, vrm and much more.
- Full body capture and model driving solution with body, hand and face.

Shaderlab Deserializer

Jul 2021 – Sept 2021

- A deserialize and serialize library for Unity Shaderlab.
- More comprehensive API than Unity build in serializer.
- Support and extending the ability of Shaderlab.

COURSE PROJECTS

SPH Based Fluid Simulation with Rigid Body Two Way Coupling

Dec 2020

- Incompressible SPH based fluid simulation with two way coupling with a cube.
- Spatial hash speed up and boundary sph particles for rigid body simulation.
- Implemented in pure C++ and offline rendering with blender.

COOL Compiler

Dec 2018

- Implementing a compiler with lexical analysis, parsing, semantic analysis, and code generation to MISP.
- Basic semantic and syntax analysis are done and support object oriented programming with inheritance

A Taste of CNN Based Gaze Estimation

Dec 2020

- A CNN based gaze estimation with almost SOTA accuracy developed with PyTorch.

EDUCATION

Shanghaitech University, Computer Science and Technology

2018 – Present

- GPA 3.3, TOEFL 102, GRE 155(verbal) + 169(math)

University of Michigan, Ann Arbor

Feb 2021 – May 2021

- Transfer student in LSA, GPA 3.8

SKILLS

- Frequently Used PL: C/C++, C#, Python, Lua
- Machine Learning: Tensor Flow, Cuda, Caffe