

RALPH KIM

Software Engineer

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EXPERIENCE

SOFTWARE ENGINEER

DeepMotion Inc.

2017 - Present

Developer for DeepMotion's Avatar SDK, an AI-driven virtual character within a physics simulated environment -- accessible through C++, Unity, and Unreal Engine. Worked on character integration pipeline, GUI editor, and prototype demos.

VR RESEARCH ASSISTANT

Carnegie Mellon Robotics Institute

2016 - 2017

Research work with Prof. Stelian Coros on VR-based body simulation. Collaboration with DeepMotion.

PROJECTS

VR THREE POINT TRACKING DEMO

2019

C++ and C#

Designed and implemented VR demos in Unity and Unreal to demonstrate virtual avatar simulation. Player directly controls a full-body avatar using motion controllers and head-mounted display as tracking points to interact with physics-based environment.

NEURON BROWSER DEMO

2018

JavaScript and C++

Developed browser-based interactive demo to showcase bipedal character simulation trained through machine learning. Implemented API layer between JavaScript code and C++ library which drives the custom physics engine and AI.

AVATAR RIG EDITOR

2017

C++

Developed DeepMotion's avatar editor which prepares rigs for integration with AI-driven character(s). Used by Samsung for AREmoji app on all S10 devices. Implemented character retargeting functionality which converts animation data from one rig retargeted on to a different rig.

EDUCATION

GEORGIA INSTITUTE OF TECH.

MS Computer Science

Spring 2017 – Summer 2020

CARNEGIE MELLON UNIVERSITY

BFA Electronic Time-Based Art

Fall 2012 – Spring 2016

INTERNATIONAL BACCALAUREATE

Fall 2011 – Spring 2012

SKILLS

PROGRAMMING

C#

C++

Python

HTML/CSS

JavaScript

MEL

Standard ML

Googling Stackoverflow

SOFTWARE

Unity

Unreal Engine 4

Autodesk Maya

Adobe CC (PS, PP, AE)