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**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

EDUCATION

**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 onto a different rig.

**UNITY SPHINX** Summer 2016 Personal Project. Cross-platform DLL wrapper for speech recognition library CMUSphinx in Unity. Written in C++ and C#.

**STATUEVISION** Summer 2015 Coordinated with artist Claire Hentschker to create interactive installation in Unity with Leap Motion. Presented at AMC Creativity and Cognition, Glasgow.

PROJECTS

**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.

EXPERIENCE

SKILLS

**SOFTWARE**

Unity

Unreal Engine 4

Autodesk Maya

Adobe CC (PS, PP, AE)

**PROGRAMMING**

C#

C++

Python

HTML/CSS

JavaScript

MEL

Standard ML

Googling Stackoverflow

Software Engineer

RALPH KIM