**THY TRAN** 

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### **EDUCATION**

University of Pennsylvania, School of Engineering Philadelphia, PA

BSE in Computer Science: Digital Media Design

May 2021

#### **SKILLS**

C++ · C# · Java · GLSL · HLSL · WebGL · CG · MaxScript · C · JavaScript · Kotlin · OCaml

Qt · Visual Studio · Unity · Unreal Engine · Android Studio · Houdini

Maya • ZBrush • Substance Painter • 3ds Max • Adobe Creative Suite

## **COURSES**

**Computer science** Art

Advanced Rendering Game Design and Development Software Design and Engineering **Physically Based Animation** 

Data Structures and Algorithms

Figure Modeling in ZBrush Advanced Modeling in Maya

#### **EXPERIENCE**

Electronic Arts: BioWare, Technical Artist Intern C#, 3ds Max, MaxScript, Houdini

May - Aug 2020

Implemented a procedure to enhance meshes with vertex colors and replace them in a game

**Computer Animation** 

Improved tools used to generate vertex color for tree meshes

Communicated with artists to assess needs and provide support

University of Pennsylvania, Research Assistant ITK Snap, Houdini, team of 3

Jun - Aug 2019

Built a pipeline to model organs of patients with hiatal hernia from CT scans Segmented organs on CT scans and created a 3D simulation of the organs

University of Pennsylvania, Teaching Assistant

Data Structures and Software Design Java, IntelliJ, Eclipse

Advanced Rendering C++, Qt, WebGL Visualizing the Past Maya

Art, Design and Digital Culture (Head TA) Java, Processing

Jan - May 2020

Jan - May 2020

Aug - Dec 2019

Dec 2018 - May 2020 **PROJECTS** 

Haystack Hoarder Unity, C#, Photon Unity Networking, Maya, team of 3

Developed a 3D online multiplayer competitive game

Programmed player movement and interaction, behavior of resources, UI elements and sound effects

Modeled, textured, rigged and animated assets in the game

Big Fish, Little Fish Unreal Engine, Maya, team of 3

Apr 2020

Dec 2019

May 2020

Designed player mechanics, AI for predator and prey, UI and sound effects for a 3D puzzle game

Created underwater environment with post processing effects and particle system

Modeled, textured, rigged and animated assets in the game

Jello Simulations C++, Houdini Implemented MPM on APIC grid system

Programmed mass-spring system

Path Tracer C++, Qt May 2019

Designed Monte Carlo path tracer with multiple importance sampling, global illumination and photon mapping Built features such as point & spotlight, implicit surfaces, thin lens camera and constructive solid geometry

Habit Tracker Java, JavaScript, MongoDB, Android Studio, team of 4

May 2019

Developed an Android application with data visualization that let users enter daily entry for their habits, access a list of resources for mental health and answer surveys

Coded a website that allows admin to change user data and create a new survey for users

Mini Minecraft C++, OpenGL, Qt

Dec 2018

Wrote player's physics and collision detection with ray casting, texture mapped with OpenGL

Made biomes with Worley noise

# **ACTIVITIES**

**UPGRADE** Game modeler

SIGGRAPH Webmaster | Mentor

Orientation Peer Advisor