

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 · CUDA · 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

ENGINEERING COURSES

Fall 2020 courses are labelled with *

GPU Programming *	Advanced Rendering	Game Design and Development
Computer Vision *	Physically Based Animation	Software Design and Engineering
Machine Learning *	Computer Animation	Data Structures & Algorithm

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

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

Jan - May 2020

Advanced Rendering C++, Qt, WebGL

Jan - May 2020

Visualizing the Past Maya

Aug - Dec 2019

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

Aug 2018 - May 2020

PROJECTS

Flocking Simulation CUDA, C++

Aug 2020

Simulated flocking behaviors of birds or fish

Utilized uniform grid with semi-coherent memory access for efficiency

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

May 2020

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, Substance Painter, team of 3

Apr 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

Dec 2019

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