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
Applied Machine Learning *	Computer Animation	Data Structures & Algorithms

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
- Built Monte Carlo path tracer with multiple importance sampling, global illumination and photon mapping
- Constructed thin lens camera, point light, spotlight, implicit surfaces and constructive solid geometry

Habit Tracker Java, JavaScript, MongoDB, Android Studio, team of 4 — May 2019
- Developed an Android application that let users enter daily entry for their habits
- Enabled users to 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