

# 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

Advanced Rendering  
Game Design and Development  
Physically Based Animation  
Computer Animation  
Software Design and Engineering  
Data Structures and Algorithms

### Art

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

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 2020

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 Algorithms 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

Jan 2019 - May 2020

## PROJECTS

**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, 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 MBM 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