# SUSAN XIE

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**OBJECTIVE** 

To acquire experience in the field of computer science and graphics.

**EDUCATION** 

HIGH TECHNOLOGY HIGH SCHOOL | September 2013 – June 2017

UNIVERSITY OF PENNSYLVANIA | August 2017 - May 2021

School of Engineering and Applied Science Candidate for BSE, Digital Media Design

Upcoming Coursework: Physically-Based Rendering, Video Game Design, Software Design

**EXPERIENCE** 

# CIT 593 / CIS 240 TEACHING ASSISTANT | August 2019 — present

Intro to Computing Systems is an introductory computer architecture class covering content from transistors and binary to assembly language and C.

hold office hours and grade homeworks

• lead recitation once a week (CIT 593)

## VINCI VR PART-TIME 3D MODELER | May 2019 — August 2019

VINCI VR is a company producing Virtual Reality solutions for clients

worked on a 3D modeling project for the US Air Force

# **DONOVAN DMD SUMMER INTERN** | June 2019 — July 2019

This is a research grant provided to two Digital Media Design students every year. I worked in the SIG lab (computer graphics lab) on a crowd simulation project

- worked on environments in Unreal Game Engine (landscapes) and buildings (Maya)
- created crowd simulations in Houdini

## **PENNAPPS CO-HEAD OF CREATIVE** | April 2018 — present

PennApps is the nation's oldest and largest hackathon, with thousands of attendees from around the world. I work as one of two directors in charge of creating material for the event. I started as a committee member in 2018 and became co-head in 2019.

- create themed flyers, swag, and more for attendees and sponsors
- manage social media, take photos
- co-head for PennApps XX branding and website: https://2019f.pennapps.com/

#### PRECISE CENTER WEB AND GRAPHIC DESIGNER | December 2018 – present

I worked on a website for the F1Tenth competition, an autonomous racing event, and the website for the 2019 PRECISE Industry Day at Penn

- designed overall look and colors of both sites, rebranded F1Tenth
- used HTML and CSS to build the sites
- http://f1tenth.org and https://precise-industry-day.seas.upenn.edu/2019/

# HILL COLLEGE HOUSE STUDENT MARKETING MANAGER | October 2017 – May 2019

Hill College House is one of 5 of the first-year dormitories at Penn. I work closely with the House Coordinator and House Dean to

- design professional marketing and promotional materials for house events
- send out weekly newsletter and social media updates

SKILLS

#### PROGRAMMING: SOFTWARE:

C++, C, C#, Python, Java, Maya, Houdini, ZBrush, Mudbox, Arnold, MotionBuilder, HTML, CSS, JavaScript Unreal Engine, Unity Game Engine, Adobe Suite

#### **RELEVANT KNOWLEDGE:**

Programming: Computer Animation, Computer Graphics, Data Structures, Algorithms, Computer Architecture, Multivariable Calculus, Differential Equations, Linear Algebra Art: 3D Modeling, Simulation, Graphic Design, Digital Illustration, Traditional Art

**PROJECTS** 

## MINI MINECRAFT • C++ (OpenGL, GLSL) — underwater themed Minecraft

- built first person physics-based game engine with walking, flying, and swimming
- implemented GUI and item bar
- responsible for sound and post-process shading effects

## MINI MAYA • C++ (OpenGL, GLSL)

- half-edge data structure and importing obj files
- implemented triangulation, subdivision, skinning

# RASTERIZER • C++

- implemented polar camera model
- import and display obj files