# Melissa Ran

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#### **PORTFOLIO**

melissaran.com

## **OBJECTIVE**

An internship that allows me to apply my experience and passion for game development, computer graphics, and art.

## **SKILLS**

Unity (procedural meshes, shaders & post processing) • C++ • C# • Java • Javascript • Blender (modeling & animation) • Adobe Photoshop • Firebase • OpenGL • HTML5 • CSS

#### **EDUCATION**

Stanford University, Stanford CA 2020-2024

## **COURSEWORK**

- Linear Algebra and Differential Calculus of Several Variables
- Programming Abstractions
- Intro to Discrete Mathematics (Middlesex Community College, NJ)

## **AWARDS**

ESA Video Game Award 2019 · Art. Write. Now Tour 2019 · Scholastic Art & writing National Gold Medal (Video Game Design) · Scholastic Art & Writing National Silver Medal (Future New) · National AP Scholar 2019 · Celebrating Art Top Ten

## **PROJECTS**

# Coffeeshop AU

• Developed a 3d "playwriting" tool, translates a screenplay written in a domain specific language to a 3d animation. Created provided 3D models, backgrounds, animations, etc. as well as a web editor with syntax checking. Uses Firebase to store user's screenplays, and allows screenplays to be shared and "played" given a code. Done in Unity. Art made in Blender.

## **Procedural Cake Decorator**

• Developed a Unity mobile game. Included procedural icing mesh drawing, Marching Squares in polar coordinates (for cake glaze,) and export to GIF feature. Upload abstracted cakes to Firebase, share with other users. Uses Unity's Addressable system. Art made in Blender.

## Plus Adventure

• Unity game: a mass collaboration I ran over social media. (200+ people) Designed "quest" and "dialogue" data structures to enable large collaboration of writers, managed asset workflow for artists. Developed the game, including generated dungeons. 3d art made in Blender.