MELISSA RAN

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EDUCATION

Stanford University June 2024
Undeclared, Undergraduate

- *Honors:* GPA 4.00
- *Relevant Coursework:* Programming Abstractions, Linear Algebra and Differential Calculus of Several Variables, Intro to Discrete Mathematics, Computer Organizations and Systems

PROJECTS

Procedural Cake Decorator – *Developer* July 2020

- Developed a Unity mobile game in team of 2 about creating and sharing 3D cakes.
- Implemented procedural icing mesh drawing and marching squares in polar coordinates for glaze.
- Implemented social features: export to GIF; upload abstracted cakes to Firebase, share with other users.
- Implemented remote asset management using Unity's Addressable system, modeled 3D assets in Blender.

Coffeeshop AU – *Director* Feb 2019

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

Plus Adventure – *Director* August 2018 – November 2018

- Developed Unity3D role-playing game in collaboration with online community of 250+ people.
- Managed team of 20+ artists, writers, and composers: developed conveyor belt-style pipeline for collaborative asset creation, delegated tasks, led brainstorming sessions, mediated conflicts.
- Released on itch.io and featured by Indie Games Plus.

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), Celebrating Art Top Ten, National AP Scholar 2019

SKILLS

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