

# Benjamin Quang

<https://benquc.github.io/Portfolio/>

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## Education

**University of California Santa Cruz (UCSC)**

*B.S. in Computer Science: Computer Game Design*

*Computer Science Minor*

Graduation Date: June 2023

GPA: 3.71

## Projects

**Mini Engine Graphics** — *Custom Mini Game Engine using C++ and GLSL for graphics.*

Learned and utilized fundamentals of real-time rendering such as coordinate spaces, 3D geometry, the GPU rendering pipeline, projection matrices, vertex and fragment shaders, texture mapping, tangent space, bump mapping, parallax mapping, lighting models, fog, particle systems, and frustum culling

**Platformer Sound Design** — *A 2D platformer with a unique grapple hook mechanic. Contributed in sound effects and initial concept design of mechanics*

Utilized Reaper, Audacity, and free sound effects to design sounds. Prioritized designing the sounds to fit within the game's sci-fi theme. Brainstormed and implemented early builds of the grapple hook mechanic for playtesting and iteration via Godot's GDscript language.

## Other Experience

**University of California Santa Cruz — Reader/Tutor**

JAN 2022 to MAR 2023 (15 hours/week)

Tutored and graded for computer classes at UCSC for three terms:

- Assisting students in computer labs
- Guiding computer projects, which include one-on-one tutoring, or team coaching online.
- Coordinated with peers to adjust curriculum projects for student's needs.

## Hard Skills

- Data Structures and algorithms
- Object Oriented Programming
- Web Development
- Software Engineering
- Mechanics, Design, Aesthetics (MDA)
- Sound Synthesis
- Mixing & Mastering
- Audio Implementation

## Soft Skills

- Problem Solving
- Adaptability
- Creativity
- Interdepartmental Communication
- Agile Development

## Software

- Unity
- Unreal
- Godot
- Clickteam Fusion 2.5
- Github
- Audacity
- Reaper
- Tableau
- Trello
- Miro

## Programming Languages

- C
- C++
- C#
- Python
- Javascript
- Assembly