

### **Skills:**

*Languages:* C#, java, javascript, python, swift

*Game Development:* Unity

*Web Development:* node.js, react.js, express.js, MongoDB, Firebase

*App Development:* iOS SDK, Flutter, React Native

### **Education:**

#### **University of California at Santa Barbara**

B.S. Mathematics - College of Creative Studies

Expected Graduation: June 2023

### **Projects:**

*Ninth Circle* (2021) - A puzzle game about a lost creature stuck in a tower. The game is made using the Unity game engine.

**Live:** <https://rnv.itch.io/ninth-circle>

*Mandelbrot and Julia Set Visualizer* (2021) -

A tool used to assist research of quadratic iterators, fixed point theory, Julia sets, and the Feigenbaum number. There are two versions of this: one in Unity and one using react.js.

**Live:** <https://julia-set.herokuapp.com/> (react.js), <https://rnv.itch.io/julia> (Unity)

**Code:** <https://github.com/arnav404/julia> (react.js)

*Royale* (2019) -

An online trivia game (iOS app) where users compete against each other in a battle royale format. Used SocketIO and node.js for the backend and the iOS SDK for the frontend.

**Code:** <https://github.com/arnav404/royaleclient>,  
<https://github.com/arnav404/royaleserver>

*Chess* (2021) - *in progress*

An website to play chess online against other players or an AI. Written using the MERN stack with SocketIO.

**Code:** <https://github.com/arnav404/chess>

### **Work experience:**

#### **Summer Camp Math Tutor at Random Math Inc. (2016-2019)**

Random Math Inc. specializes in teaching elementary to middle schoolers to master crucial concepts required to excel at problem solving. Prepared over 30 students for not only math competitions and future high school classes but also helped them understand and solve everyday problems using math.