ANIKA VERMA

DESIGNER AND DATA SCIENTIST

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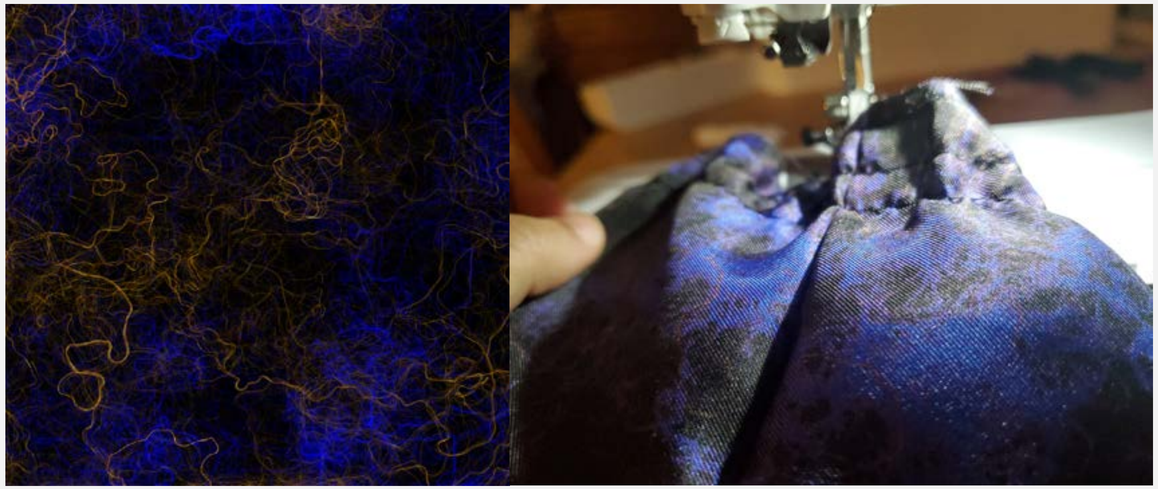
*Due to contract obligations, I am unable to show pictures of my professional work. Explanations of my professional acheivements and work are available upon request. This portfolio shows my personal projects.

INTEGRATING MUSIC, CODING, AND SEWING

NOVEMBER 2022 - DECEMBER 2022

CODING//CLOTHING



I visualized one of my favorite songs in p5.js as an additive flowfield by analyzing the intensity of the bass and treble of the music. After creating an image using the flowfield, I printed the art on fabric. I sewed a top with a structured bodice, lace-up back and bishop sleeves that displayed the art.

https://youtu.be/ShvY3qZUcIw

https://editor.p5js.org/anikav/sketches/Bdm6hikek

Tools: p5.js, sewing machine

CODING.
DESIGNING.
SEWING.

SEWING.
CODING.
DESIGNING.
SEWING.

GRAPHIC DESIGN AND ANIMATION

OCTOBER 2022

LOGO DESIGN

I created a logo for a business based in Haleiwa, Hawaii. The Ukulele Site is an online store that sells ukuleles both in store and online from some of Hawaii's best luthiers. They also have a weekly podcast/video where they show sound samples and play new ukuleles featured in their store.

I made all the assets for this project myself in Photoshop, then assembled them together in After Effects to make a 5-second animation that the owners of the site would be able to embed at the beginning of their videos on YouTube.

https://youtu.be/5mVVZb2oM8c

Tools: Adobe Photoshop, Adobe After Effects, Wacom Intuos Tablet

MIXED REALITY FOR A SAFETY CRITICAL CONTEXT

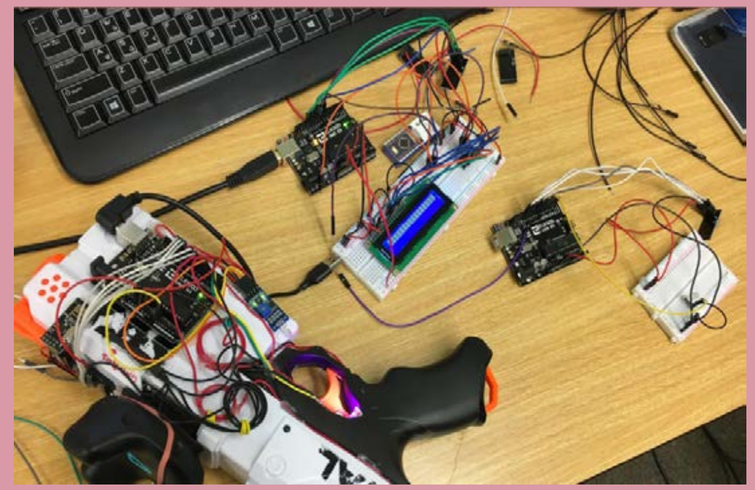
DECEMBER 2019 - MAY 2020

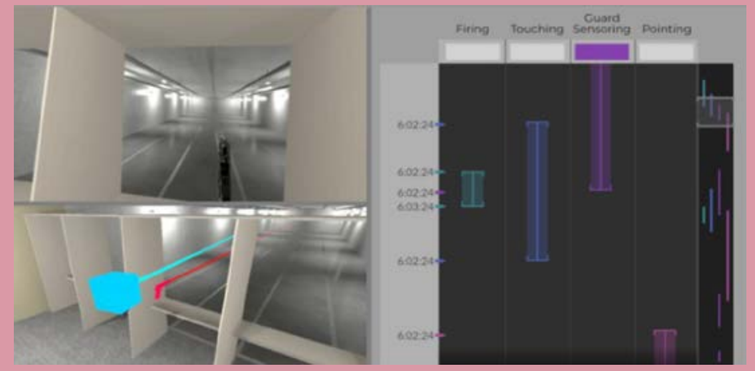
CONDITION ONE

Condition One is a mixed reality research project that was created to assist with firearms safety training. The concept is based off Firearms Training Simulations, or FATS, but with a goal to make them more accurate and provide thorough feedback for both an instructor and a student.

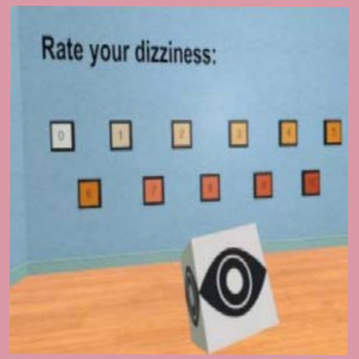
I was a game programmer and visual designer on this project, and wrote much of the code that linked the Unity program to the Arduino. I wrote the code to interpret the data received from the Arduino and visualize it on the Unity side, and also designed the virtual environment that the user was in. My research partner, professor and I wrote a paper that is pending acceptance to journals in 2023.

Tools: Unity 3D, Arduino, HTC Vive, SteamVR, Adobe Photoshop





VIRTUAL REALITY FOR PHYSICAL THERAPY



JUNE 2017 - DECEMBER 2019

VR REHABILITATION

I created a game in virtual reality in collaboration with the Ithaca College Department of Physical Therapy who recognized the potential that VR has to benefit patients through therapeutic systems. This game helps those with vestibular disorders by simulating an exercise that these patients often perform in physical therapy.

As the game programmer on this project, I wrote the code to make the excerise work and provide feedback to the patient and the physucal therapist. The game works by asking the user to focus on an object provided in game, then turn their head side to side until they meet a specific angle. This angle was decided upon by the physical therapists I collaborated with. My research partner and I were invited to share present our research at local, national, and international conferences.

Tools: Unity 3D, HTC Vive, SteamVR, Adobe Photoshop