BRENTON VAVREK

brentonvavrek@brentonvavrek.digital

www.brentonvavrek.digital

Design Thinking

I implement projects using the Design Thinking Process: Empathize ⇌ Define ⇌ Ideate ⇌ Prototype ⇌ Test

Creative Coding: Bank-it-Ball Game

In 2024 I enrolled in a creative coding class at Penn State that utilized the Processing 4 IDE to construct Java-based graphical applications. The class provided opportunities to apply object-oriented programming concepts learned in my programming courses. My final project was an arcade style basketball throwing game called Bank-it-Ball that includes sounds and graphics.

Java, Processing IDE, OOP, Game Design, AI Art, Game Physics
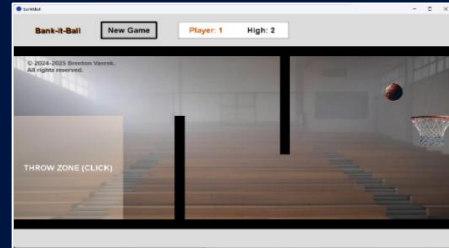
Edutainment: Color Cave Game

In 2024 for my upper-level Digital Multimedia Design (DMD) course, I created an educational entertainment game. The game was implemented using the GameSalad visual authoring tool. The design is a platform arcade-style game with educational mini-games that quiz the player about color wheel theory questions. The game app is published on the GameSalad Arcade website.

GameSalad, Game Design, AI Art, Photoshop, Musical Themes

Web Design & Development: RC Car Shop

In 2023 I enrolled in web design classes at Penn State. The final project for my Information Sciences & Technology (IST) class was to create an example online shopping website. I chose to create a remote-controlled (RC) car league website that hosts competitions as well as an online store. This learning opportunity improved my understanding of website layout and composition.

HTML, CSS, JavaScript, Web Design, AI Art, Photoshop
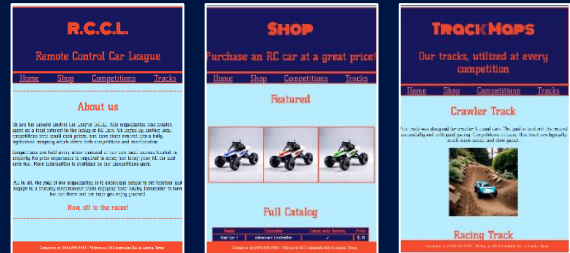
3D Modeling & Rendering: Chessboard

In 2023 I enrolled in a 3D digital art modeling class at Penn State. The class provided opportunities to learn about how to construct models, add textures, arrange scenes, apply lighting effects, and create renders. For one of my semester projects, I modeled a chessboard and its pieces using Blender and applied Physically Based Rendering (PBR) textures.

Blender, 3D Modeling & Rendering, PBR, Lighting, Textures

Graphic Design & Visualization: Infographic Posters

In 2024 I enrolled in a graphics design course at Penn State that focused primarily on data visualization. For semester projects I created a historical timeline poster for a local community park as well as an analytical poster that visualizes the occurrence and frequency of specific sounds at a local caffé shop. The posters were created using the Figma design tool.

Figma, Graphic Design, Research, Data Visualization

Please visit www.brentonvavrek.digital to interactively explore these and other portfolio projects in detail.