

# Daniel Castro

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## ACADEMIC PROJECT EXPERIENCE

**Arduino and Processing Developer, Circuit Engineer,**  
The Doll House  
Team Academic Project (Jan-Apr, 2023)

- Programmed in Arduino and Processing different interactions using sensors and buttons to build an interactive embedded system.
- Modeled and animated the main character, resulting in lifelike and fluid movement transitions that enhanced the animation's realism.

**Game Developer, The Banished Wizard**  
Independent Academic Project (Jul-Aug, 2023)

- Designed and programmed a platformer game using Processing, implementing principles of object-oriented programming such as inclusion polymorphism and inheritance to enhance gameplay dynamics.
- Refined code structure for increased efficiency and maintainability by encapsulating game elements within classes.
- Crafted fluid game animations with high-quality, thematic imagery, elevating user engagement through a cohesive and captivating visual experience.

**Java Developer, Winery Simulation**  
Independent Academic Project (Nov-Dec, 2023)

- Programmed an interactive time-based Java application to simulate the wine-making process, incorporating recursive functions, Perlin noise, and different classes.
- Implemented system responses to user interaction such as click-and-drag, click multiple times, implemented animations using Perlin noise and recursive functions, significantly improving user experience
- Illustrated 19 custom visual assets in Clip Studio, creating detailed frame-by-frame animations depicting the winemaking stages.

## SKILLS

Python  
Processing  
Java  
C++  
Arduino

## EDUCATION

May 2021 - December 2025  
(expected)

**Simon Fraser University**  
Bachelor of Arts,  
Interactive Arts &  
Technology

## ACHIEVEMENTS

First place in Arduino Day  
Competition 2019  
(Robotics)

- Awarded for inventing a device that controls irrigation based on humidity and rain.
- Competed against participants from all over the city.

## LANGUAGES

- Native Spanish
- Fluent English

## INTERESTS

Animation, Gaming,  
Coding, Volleyball,  
Astronomy