

# PEDRO FONSECA

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• <https://fonscap20.github.io/fonscap/>

## EDUCATION

### University of Michigan - Ann Arbor

Bachelor of Computer and Cognitive Science

GPA: 3.653

Ann Arbor, MI

Aug. 2020 - Dec. 2023

Coursework: EECS 280 - Programming and Introductory Data Structures, EECS 281 - Data Structures and Algorithms, EECS 494 - Introduction to Game Development, EECS 498 - Extended Reality and Society

## WORK EXPERIENCE

### WolverineSoft Studio - Project Nova - Unity 3D

Gameplay Programmer

Remote

May 2023– Aug. 2023

- Working on a team of 49 students in the development of a 3D, rogue-like case study based on Nova Drift.
- Assigned to a programming subdivision of 7 students to implement the game functionality and the encounter-related requests by the game design team.
- Following an AGILE work ethic with tools like **Jira**, **Confluence**, and **Bitbucket** to maintain our project.
- Implemented features such as enemy movement patterns, screen wrapping, and hazard systems.

### AppStop.io - One Tap Victory Lap - Unity 2D

Gameplay Programmer, UI/UX Developer

Remote

Sep. 2023– Nov. 2023

- Built and shipped a mobile app to the **App Store** and **Google Play Store** with a team of 4 developers.
- Implemented a notification system to guide players to previously missed menus using static class structures.
- Integrated **UI/UX** elements into an in-progress project to allow the player to see their reward progress and familiarize myself with the existing codebase.

## PROJECT EXPERIENCE

### EECS 494 - Project 3: Slime-Handed - Unity 3D

Game Designer, Level Designer, Gameplay Programmer

Ann Arbor, MI

Feb. 2023 - April 2023

- Developed a **3D** physics game with a core mechanic of "sling-shooting" to expand our skills past the 2D setting.
- Learned and utilized the industry-standard software **Jira** to handle task and time management.
- Designed **3D** levels in **Unity** and handled checkpoint and player-state systems to maintain a closed game loop.
- Delved into ~~armatures and 3D soft-body physics~~ and linked user behavior to audience behaviors allowing the user to assess the quality of their speech in the creation of slime assets to learn the basics of **Blender**.
- Followed an **iterative design process** through weekly playtesting sessions to support feedback-driven development.

### EECS 498 - Project 3: SpeakVR - Unreal Engine VR

Project Manager, Programmer

Ann Arbor, MI

Nov. 2023 - Dec. 2023

for text **UI**.

- Utilized **Unreal blueprints** to establish the **affordance** system allowing us to add user interactions through overrides of the affordance class "interact" function.
- Implemented the note card system to replicate note usage in real-life speeches.
- Managed the tasks for each sprint based on team discussion in support of the **iterative cycle process**.

### EECS 498 - Project 2: A2Go! - Unity AR

Gameplay Programmer, UI/UX Developer

Ann Arbor, MI

Nov. 2023 - Dec. 2023

- Designed and implemented all **UI** elements to provided a low-complexity and welcoming art style.
- Structured a database of tree and enemy objects used to pass data between scenes.
- Utilized **Mapbox** systems to provide an accurate map of a user's surroundings.
- Diversified enemy types with different movement patterns to make the game aspect more alluring.
- Handled user camera controls to allow preferred perspectives of the environment.

- Proficient in C++, C#, C, Blueprints, Python, OCaml and familiar with React and HTML/CSS.

- Unity, Unreal, Git, PlasticSCM, Jira, SourceTree and familiar with Blender.

- Bilingual. My first language is Spanish and I am 4th-term proficient at the University of Michigan.