

Andrew Knowles

(631) 316 – 0130 📞
ajknowles21@gmail.com ✉️
<https://ajknowles11.github.io> 🌐
8 Locust Ln, Huntington, NY 11743 📍

SKILLS

- Programming: C, C#, C++, Python, GDScript
- 3D, VR, and mobile AR game development
- Game Engines: Unity, Godot, Unreal
- Linear Algebra and Multidimensional Calculus
- Communication and cooperation
- Willingness to learn and listen to feedback

EDUCATION

- 08/2020 – 05/2024 **Carnegie Mellon University** – Pittsburgh, PA
- B.S. in Mathematical Sciences, Discrete Math and Logic Concentration
 - Minor in Game Design
 - Relevant Coursework:
 - Intro to Computer Systems, Computer Graphics, Linear Algebra, Combinatorics, Parallel and Sequential Data Structures and Algorithms, Principles of Functional Programming
 - Active member, Game Creation Society

PROJECTS

GAMES

- 01/2023 – CURRENT **Project Horus VR** – VR boss-rush action game, featuring desert robots
Unreal Engine 5.1
- Designed, implemented enemy AI; integrated animations with VR combat system
- 01/2023 – CURRENT **AR Detective Game** – Mobile AR mystery game using Niantic Lightship ARDK
Unity Engine
- Designed flexible dialogue and progression system for story-driven gameplay
 - Utilized Niantic VPS to place persistent objects in real-world space on campus
- 02/2023 – 02/2023 **Fresh Beets VR** – Short VR cooking rhythm game for Global Game Jam
Unreal Engine 5.1
- Scripted music sequences, chart writing/loading; helped compose music
 - Developed controller to test gameplay with and without VR headset
- 09/2022 – 01/2023 **Panarctica** – Vertical slice FPS mission in airships above a frozen world
Unreal Engine 5.1
- Lead programmer – designed and implemented AI, animations, weapons

WORK EXPERIENCE

- 06/2022 – 07/2022 **Data Entry Clerk**, National Consumer Panel – Syosset, NY
- Designed readable, connected spreadsheets for employee performance using links, TypeScript functions, and Microsoft Power Automate
- 07/2021 – 08/2021 **QA Intern**, Certain, Inc. – Remote
- Tested robustness and ease-of-use of new web design product for hybrid event planning; communicated directly with lead developers