

Andrew Knowles

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SKILLS

- Programming: C, C#, C++, Python, GDScript
- Functional Programming: SML/NJ
- Game Engines: Godot 4 beta, Unreal Engine 5, Unity
- 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 (15213), Linear Algebra, Combinatorics, Parallel and Sequential Data Structures and Algorithms, Principles of Functional Programming, Probability

PROJECTS

GAMES

12/2022 – Current

Spirit Swindler – Solo – Short, replayable, not-horror ghost trading simulator
Godot 4 beta; GDScript

- Created custom art, models, animations, sounds, and music
- Designed 3D first-person ghost hunt section with 2D trade encounters

09/2022 – 01/2023

Panarctica – Group – Vertical slice FPS mission in airships above a frozen world
Unreal Engine 5.1; Blueprints

- Designed and implemented AI, programmed animations
- Communicated with ~12 teammates of varied backgrounds

SCHOOL

10/2022 – 11/2022

MallocLab – 15213 – C implementation of dynamic memory allocator

WORK EXPERIENCE

06/2022 – 07/2022

Data Entry Clerk, National Consumer Panel – Syosset, NY

- Designed readable connected spreadsheets for employee performance with links, TypeScript functions, and Microsoft Power Automate
- Documented development with templates to facilitate future use

07/2021 – 08/2021

QA Intern, Certain – Remote

- Tested robustness and ease-of-use of new web design product for hybrid event planning
- Communicated directly and planned solutions with lead developers