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
- Active member, Game Creation Society

PROJECTS

GAMES

02/2023 – 02/2023 — **Fresh Beets VR** – Group – Short VR cooking rhythm game
Unreal Engine 5.1; Blueprints

- Scripted music sequences, chart writing/loading; helped compose music
- Developed controller to test gameplay without a VR headset

09/2022 – 01/2023 — **Panarctica** – Group – Vertical slice FPS mission in airships above a frozen world
Unreal Engine 5.1; Blueprints and C++

- 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