

Alex Kaplan

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SKILLS

Technical: Unity; Godot; JIRA; Microsoft Office Suite

Languages: C#; Python; R; C; JavaScript; SM; HTML; CSS; GDScript

EXPERIENCE

Vineyard Sound

Full Stack Developer

Martha's Vineyard, MA

June 2023 – August 2024

- Maintained and expanded web page of 501(c)(3) organization using SQL database.
- Connected frontend and backend of webpage to build dynamically updating frontend pages.
- Developed tools using Square and Google Sheets API to automate seat reservations and bookkeeping.

Wesleyan University

Senior TA: Small Team Software Development

Middletown, CT

Dec 2023 – May 2025

- Designed and taught pre-class preparatory courses to 40 students.
- Introduced game design and development concepts using C#, Unity, and Godot, including the core gameplay loop, AGILE methodology, game engine selection, and best practices documentation. Oversaw biweekly design/code review.
- Administered Hackathons and provided student support throughout the development of short and long-term projects.
- Led team of four TA's in administering course management and student assistance.

TA: Software Engineering

Sept 2023 – Dec 2023

- Studied common development stacks for web and application development, with a particular focus on LAMP.
- Developed and taught lessons in Software Engineering and Web Development using React.
- Engaged in peer programming and code reviews during biweekly office hours.

PROJECTS

Rock Hunting with Mohs

Gameplay/Level Designer, Programmer, Writer

Middletown, CT

Jan 2023 – May 2023

- Developed an educational game targeted at 2nd – 5th graders that teaches the basics of geology.
- Practiced AGILE methods including scrums, weekly sprint planning meetings, McConnell metrics, and bi-weekly code reviews.
- Designed, wrote, implemented, and tested four levels with 19 Unique NPC interaction scripts and 10 puzzles using Unity and C#.
- Presented development, marketing, and budget plans to games industry professionals. Won first prize in course competition.

S-Tier Hitman

Creator, Programmer (IDEA 350 Hackathon 2023)

Middletown, CT

February 2023

- Designed and developed real-time demo of an arcade-style video game in a five-person team in 30 hours.
- Refactored architecture and codebase individually for WebGL release of the product, achieving 50% increase in frame rate and 20% decrease in load time.
- Built level progression and player interaction systems using C# and the Unity Input System.

Honors Thesis – Drawing the Line: Algorithmic Redistricting and the Supreme Court

Middletown, CT

Writer, Programmer

Sept 2024 – April 2025

- Implemented Sequential Monte Carlo sampling program to generate redistricting ensembles using Python and R. Constructed demographic and geographic weighting designed to simulate differing initial conditions for the redistricting process.
- Utilized tidyverse packages for automated large-scale data processing and visualization.

Terrain Hole Utilities

Designer, Developer

Middletown, CT

Feb 2025 – March 2025

- Created open source, extensible suite of C# functions and classes to create holes and manage hole map textures in Unity Terrain at runtime, allowing for real time player-directed manipulation of terrain that was previously unsupported by the engine.
- Created documentation of functionality and submitted for review on the Unity Asset Store.

EDUCATION

Wesleyan University

Degree: B.A. with Honors in Computer Science and Interactive Media

Middletown, CT

Sept 2021 – May 2025

GPA: 3.73 / 4.00 | Honors: Dean's List, Horace White Fellowship, Departmental Honors

Relevant Coursework: Linear Algebra, Algorithms and Complexity, Video Game Architecture in Unity, Discrete Mathematics, Automata Theory and Formal Languages, and Design of Programming Languages

LEADERSHIP EXPERIENCE

Wesleyan University

Middletown, CT

- Directed two *a cappella* groups and was featured in a [NYT article](#).
- Founding member of Wesleyan's game design club and helped design the Interactive Media and Game Design minor.
- Appointed to College of Design and Engineering Studies' Major committee.

Vineyard Sound

Martha's Vineyard, MA

- Managed budget and expenses of 501(c)(3) organization, organizing charity *a cappella* performances on Martha's Vineyard.

References available by request.