

Ivan Ho

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PROJECTS	<i>Project Manager and Puzzle Developer</i> Legup An open-source software where students can create, edit, and solve logic puzzles for various logic courses at Rensselaer Polytechnic Institute. <ul style="list-style-type: none">- Programmed and tested new logic puzzles (i.e. Battleship, Tree Tents) using a newly implemented code structure and various unit tests to reinforce logic correctness for each rule in each puzzle.- Managed a small development team via reviewing open-source contributions (i.e. pull requests) or providing guidelines, documentation, and a project plan for the related codebase.	May 2022 – Present
	<i>Front-End Developer</i> Flight Tracker A tool to visualize and filter publicly available flight information. <ul style="list-style-type: none">- Designed and implemented the user interface of the application and an intuitive API to communicate to the back-end to gather and visualize flight data based on inputted filter parameters.- Created multiple autonomous workflows to validate any changes made to the application and to ensure the new code maintains the established code style for easy readability.	Jan 2023 – Apr 2023
	<i>Gameplay and Systems Programmer</i> Waves A tactical naval ship simulator set on an alien ocean planet. <ul style="list-style-type: none">- Designed and coded new real-time gameplay mechanics with interactive elements for easy accessibility to their properties to improve the efficiency of testing, number tweaking, and balancing.- Optimized back-end systems and existing features to improve software performance and reduce memory usage.	Sep 2022 – Apr 2023
EXPERIENCE	<i>Quality Engineer Intern</i> Dassault Systèmes Waltham, Massachusetts <ul style="list-style-type: none">- Designed and implemented new methods to test the performance and reliability of new and existing features for existing software.- Revised existing testing programs to support multithreading, allowing for tests to run in parallel and greatly reducing the wait times for tests to run on extremely large databases.	Sep 2022 – Dec 2022
	<i>Programming Instructor</i> Juni Learning Remote <ul style="list-style-type: none">- Held virtual 1-on-1 lessons with five high school students on a weekly basis on various programming languages such as C#, C++, and Scratch.- Taught courses on coding fundamentals such as formatting code, data structures, writing algorithms, and object-oriented programming.- Assigned and graded supplemental programming projects for students.	Jun 2021 – Aug 2022
	<i>Team Manager and Head Moderator</i> Glacial Esports Remote <ul style="list-style-type: none">- Managed multiple teams by holding routine group and 1-on-1 meetings with team members and staff.- Facilitated and simplified events scheduling and information sharing among multiple teams.- Moderated community and private messaging group chats, posting routine reminders of upcoming events and practice sessions, and integrating server bots to automatically filter out spam or inappropriate postings.	Mar 2020 – Jun 2021
	<i>Programmer and 2D/3D Artist</i> National High School Game Academy Carnegie Mellon Pre-College <ul style="list-style-type: none">- Studied various game development fundamentals such as game programming, 2D/3D art and animation, storytelling, sound design, and game design with graduate students and professors of respective fields.- Worked in teams to pitch, build, and present two game projects: one based on a remastered retro game, and another based on an original idea.	Jun 2019 – Aug 2019
EDUCATION	Rensselaer Polytechnic Institute (RPI) Troy, New York B.S. in Computer Science & B.S. in Games and Simulation Arts and Sciences GPA: 3.72	Dec 2023

SKILLS

- C/C++/C#
- Java
- Python
- HTML/JS/CSS
- Unix
- Unity
- Unreal Engine

COURSEWORK

- Data Structures & Algorithms
- Operating Systems
- Computer Architecture
- Artificial Intelligence I
- Discrete Mathematics
- Linear Algebra
- Differential Equations
- Game Design & Development