

# Richard Phong

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## EDUCATION

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**University of Houston** | Bachelor of Science in Computer Science

Expected May 2024

- GPA: 3.9(Overall), Major GPA: 4.0

## EXPERIENCE

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**NASA** | *ASP.NET, HTML/CSS, Javascript, VB*

April 2022 - Present

### Software Developer Intern

Houston, TX

- Refactored code for Emergency Simulator, an **ASP.NET**-based program used to train astronauts boarding the ISS, reducing file sizes by upwards of 1MB and **improving script speed by over 5x**.
- Utilized the refactored program as the base for a new AGA(Anomaly gas analyzer), a more interactive/in-depth version of Emergency Simulator.
- Created a user-friendly version of Stow-Track, a stowage tracking tool used by ground crew and astronauts to communicate needs/tasks by converting **VB(Visual Basic)** to C# and importing the spreadsheet/XML exclusive tool to a browser-based environment.

## PROJECTS

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**Tetris Remake** | [Demo \(YouTube Link\)](#)

Dec. 2022

- Created an NES-styled Tetris using **Unity and C#** as a personal project
- Implemented a scoring system and SFX from the original NES Tetris

**League of Legends Website** | [Demo \(YouTube Link\)](#)

Feb. 2022

- Used **Riot Games API** to create a website based on the video game "League of Legends," as a personal project
- Utilized **EJS** to display the data retrieved using **Express.js** based on user input(Player name)
- Visualized data using HTML/CSS to dynamically display feedback based on player performance, which is determined based on specific criteria that were fetched from the JSON data given by the API.

**TAMUHack 2022: NFTeach** | [Devpost Link](#)

Feb. 2022

- Created a way to track user engagement in video conferencing environments as a hackathon project
- Tracked user engagement by sending screen captures with **webRTC** at set intervals to the **Google Vision API**, which analyzes the images and detects facial expressions
- Hosted the program on a custom website using HTML/CSS
- Awarded **1st place** for **Best Use of Google Cloud API**

**Froggie Adventures** | [Demo \(YouTube Link\)](#)

May. 2022

- Created a 2-D procedurally generated platformer with **Unity and C#**, leading a team of 3 as a club project
- Developed a procedural generation algorithm using preset rooms/spawn points, combined with custom tile logic in order to dynamically create each level and also scale level difficulty.
- Implemented scrum techniques to ensure consistent progress while considering dynamic student schedules

## CLUBS

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**CougarCS - Member/Tutor**

- Tutored fellow peers in *Intro to C++* and *Programming and Data Structures*

**CodeCoogs - Intern(Pseudo Officer)**

- Assisted in hosting bi-monthly competitions on code forces by choosing problem sets and explaining solutions
- Represented UH at the **International Collegiate Programming Contest(ICPC)** on a team of 3 in division 1

## SKILLS

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**Languages:** Java, C++, C#, Javascript, HTML, CSS, Visual Basic

**Tools:** Unity, Git/Github, Blender, VBA

**Frameworks/Libraries:** Express.js, React.js, EJS, WebRTC, Sass, JQuery, .NET, Node.js