

# Harry Donovan

UNIVERSITY STUDENT · GAMES PROGRAMMER

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## Summary

I am an avid programmer with a strong knowledge of version control using Git, experience with multiple programming languages and an excitement for facing new, interesting challenges. I have become a confident presenter who is comfortable with all aspects of teamwork, including leading a team and liaising between different disciplines on a team. I have previously implemented custom movement controllers, boids and behaviour trees, and planned and designed complex weapon systems. My ideal position would be a programming position with opportunities to progress to senior positions as I grow with experience, and as such I am very interested in opportunities to grow towards these roles.

## Skills

- Languages: C#, C++, LaTeX
- Game Engines: Unity, Unreal Engine 4
- Version Control: Git
- Project Management: Agile, Scrum, Sprint Planning, Trello

## Published Games

### Yvaga Station - Team Lead & Programmer

Unity 2018.4

SELF PUBLISHED TO ITCH.IO ([HTTPS://DAYLUKE.ITCH.IO/YVAGA-STATION](https://dayluke.itch.io/yvaga-station))

May 2020

- Presented a concept pitch to in order to continue development past prototype stage
- Implemented asymmetric multiplayer game using PUN2 package for networking
- Designed and implemented a modular custom movement system to expand on the options available to the player
- The game has 272 downloads (as of February 2021) on itch.io

## Programming Projects

### Pacman AI

Unity 2019.4.1

[HTTPS://GITHUB.COM/HDONOVAN96/PACMANAI](https://github.com/HDonovan96/PACMANAI)

December 2020 - January 2021

- University project to implement behaviour trees for Pacman ghosts
- Designed and implemented three unique behaviors - Scout, Guard, and Pursuit
- Agents designed to work together - Scout relays players position to other agents while avoiding conflict with the player
- Implemented agent 'memory', so agents remember the position of pills and the player and act only on this info

### Infinity - Battle Royal

Unreal Engine 4.22.3

May 2020 - August 2020

- Designed code structure for complex weapon system with loot spawning, weapon modifications, and fire modes
- Systems designed to interface with a custom network designed by another programmer
- Implemented majority of the systems, including setting up recoil so it could be driven by IK systems

### Snake

C++ OpenGL

[HTTPS://GITHUB.COM/HDONOVAN96/SNAKE](https://github.com/HDonovan96/SNAKE)

July 2019

- Developed and implemented in OpenGL for C++
- Programmed a game of snake including collision detection and random 'apple' placement
- Displays players score upon death without the use of text as a challenge to see if the information could still be conveyed clearly
- Set up initial conditions so the game could be restarted with a single key press

## Education

### Falmouth University

Falmouth, United Kingdom

BSC COMPUTING FOR GAMES

Sept. 2019 - June 2022

- Worked with a multi-discipline team to bring several games through a full development cycle
- Learned about and improved upon creating neat, maintainable code through commenting and UML diagrams
- Participated in modules including creating a custom physical controller and designing an audio generation tool
- Received and responded to feedback from concept pitches, module evaluations and regular game progress reviews
- I am involved with a peer-assisted learning programme (PASS) designed to help teach new students vital problem solving skills
- I am also active with helping other students with general, programming, and version control questions outside of this role

## Work Experience

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### Freelance Programmer and Designer

IQMINDWARE

- Build and develop application from scratch based on a given brief
- Collate features from several previously developed applications
- Design new features with a focus on user retention

*Falmouth, Cornwall*

*November 2020 - Current*

### Senior Ambassador

FXPLUS

- Increased responsibility for the smooth running of events
- Manages the distribution of Student Ambassadors during events
- Relied on to handle any complications or problems that arise during an event

*Falmouth, Cornwall*

*June 2020 - Current*

### Student Ambassador

FXPLUS

- Involved in the running of university events and open days
- This includes discussing the course with potential students and leading group tours around the campus
- I have also spoken on an online Q&A panel as part of this role

*Falmouth, Cornwall*

*October 2019 - June 2020*

## Extracurricular Activity

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### PASS Leader

FALMOUTH UNIVERSITY

- Planned and lead regular Peer Assisted Support Scheme (PASS) sessions for first year students in our department
- Sessions were student led, with us tailoring sessions around what students wished to cover
- Sessions focused on common problems and soft skills

*Falmouth, United Kingdom*

*September 2020 - January 2021*