

# EOGHAN MULVENNA

Game Developer & Programmer

## PERSONAL PROFILE

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Making games is something I have always done and will always do. From growing up in Ireland creating playground games for my whole school, to high school in Edinburgh where I gained a passion for programming, to now in Dundee where developing games is my career. My goal in life is to continue this journey, to keep learning and growing as a developer by making fun, interesting and creative games.

## ACCOMPLISHMENTS

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- Dare Academy 2018 Finalist  
Participated in Abertay's Dare Academy competition with the game Vox Racers, where we got through the first and second pitch stages right to the final held at EGX where we showed of our game to the general public attending the convention.
- IGDA Community Choice Runner-up 2019  
My Game Netherspoons came second in a community vote in 2019's Dundee's IGDA play party
- 3rd Place IBM Business Challenge Semi-Final 2017
- Roleplaying Society: President (2018), Secretary (2017)
- Class Representative: 2nd, 3rd & 4th Year.

## SKILLS

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- C++, C#.
- Unity(C#), Unreal 4(C++ & Blueprints).
- Gameplay Programming.
- Procedural Programming
- Very Experienced with Source Control
- Fast Learner of New Languages, Engines Frameworks and Technologies.
- Can Work Well Collaboratively and Independently
- Creative and Analytical Problem Solving

## CONTACT ME:

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## REFERENCES

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**Elaine Lithgow**  
Former Producer at Orthrus Studios  
Contact: [elainelithgow87@hotmail.co.uk](mailto:elainelithgow87@hotmail.co.uk)

**Nick Kondylis**  
Senior Programmer at Orthrus Studios  
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## PROFESSIONAL CAREER

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### Orthrus Studios

*Juitor Programmer | June 2018 - May 2019.*

*Programmer | May 2019 - Present.*

- At Orthrus I am responsible for a wide array of duties and tasks ranging from gameplay programming to design and implementation of system architecture as well as overseeing entire modules of the game.
- I work closely with design, art and QA as well as directly with other programmers on shared tasks
- I designed and created a road system and tool for a city builder which included the creation of a procedural mesh system, complex intersection system and user-friendly interface.
- Using Unity's Entity Components system created a cellular automata local avoidance crowd system.
- Created a local grid system for a city builder, that was paintable with different brushes or a fill tool and used separating axis theorem to detect intersection with the grid to dynamically cull tiles.
- Implemented an architecture to replace unity monobehaviours to reduce overhead and give the programmers more control of objects.
- Created many of a city builder's core simulation mechanics and systems.
- Created UI code and implemented UI elements
- Helped create tools to be used by both the code and design departments.

## EDUCATION

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### Abertay University

*BSc(Hons) Computer Game Applications Development*

- September 2014 - May 2018
- Degree Classification: 2/1
- At university I worked on a multitude of different projects both for course work and outside of class. These ranged from buoyancy and Gerstner wave simulations to the implementation of advanced AI techniques and VR Games as well as more general projects relating to all manner of different software and game development subjects, such as graphics, network, gameplay and tools programming.
- The most notable of my projects at university was my honours project which investigated procedural generation of VR environments. I created an infinite procedural cave that could be fully explored in VR. This was done through a combination of Marching Cubes, 3D Cellular Automata and Simplex Noise. The biggest challenges that I had to overcome was optimization of the application in order to generate the cave in real time, which was done through splitting the generation in to chunks, multi-threading and research into different optimization and efficiency techniques