

Email:  
[nickbedford@sky.com](mailto:nickbedford@sky.com)

Contact number:  
07701060998

Online portfolio:  
<https://tohaveaname.github.io>

# Nick Bedford

## Video Games Programmer

I am a video games programmer with a huge passion for games. I take great pleasure in producing flexible and reusable systems for games.

## Work experience

July 2019 - Present	<b>Systems Designer: Content</b> – Rockstar North <ul style="list-style-type: none"><li>• Currently work in a large team to create and maintain tools used by the content team to create data driven missions.</li><li>• At present acting as the primary developer for our in-house node based visual scripting language used by the content teams to create bespoke pieces of logic for their missions.</li><li>• Developed the initial architecture for the behaviour tree system currently used by the script department.</li></ul>
September 2018 – July 2019	<b>Systems Designer</b> – Rockstar North <ul style="list-style-type: none"><li>• Worked in a small team to create a prototype game in C# which was used as a proof of concept for future consideration.</li><li>• Primarily worked on agent pathfinding and movement in the project. This included group flocking for agents on a dynamic navmesh and implementing a Kalman filter based pathing system to compensate for location data noise to produce smooth paths for in game agents.</li><li>• Implemented some graphics features on the project including making a cell shaded appearance for the game and an automatic colour converter in the UI for colourblind users.</li><li>• Assisted in the design and creation of missions featured in the game.</li></ul>
September 2015 – September 2016	<b>Industrial Placement Student</b> – Newcastle University <ul style="list-style-type: none"><li>• Helped with the development of software utilised in research at the university. The research investigated the gamification of assessing children with hemiplegic cerebral palsy. I used a well-established project developed in Unity by researchers to implement a story within the project for children to enjoy while the camera on the tablets used were used to aid doctor's assessment of the children's condition.</li><li>• Embarked on personal research into Unreal Engine 4 to widen skill set. The product of the research became the basis of my under graduate dissertation where I assessed the pro and cons of making an AI utilise teamwork vs having simpler AI agents which did not attempt to use teamwork.</li></ul>
August 2015 – August 2016	<b>IT Support Technician</b> – RNIB/MPH <ul style="list-style-type: none"><li>• Created the framework and associated documentation of a video game developed for visually impaired customers using Unity 5. The framework was designed to be intuitive to new users of Unity so that it could be developed further by users without a particularly technical background.</li><li>• Helped with general maintenance and any other ad hoc duties given.</li></ul>

## Education

September 2017 – September 2018	<b>Graduated with Distinction in Computer Game Engineering MSc</b> – Newcastle University Modules: Advanced Programming for Games, Advanced Graphics for Games, Advanced Game Technologies (Physics, Game AI and Networking), Research Methods for Gaming Innovations, Entrepreneurial and Enterprise Skills in the Games Industry, Engineering Gaming Solutions within a Team, Project and Dissertation in Computer Game Engineering
September 2013 – July 2017	<b>BSc with first class honours in Computer Game Programming</b> – Northumbria University Modules: Year One: Programming for Games 1 and 2, Dynamics for Simulation, Computer Fundamentals, Computer Games Design, Relational Databases.  Year Two: Programming for Games 3 and 4, Mathematics, Project Management, Games Interface and Scripting Project, Games Architecture and Development.  Year Three: Combined Games Project, Advanced Games System Architecture, Specialist Game Programming and Individual Project - "Simulating Teamwork with Game AI".
September 2008 – July 2013	<b>A levels:</b> Chemistry(B), Biology(B), BTEC Applied Science(Distinction*), Maths(D) <b>GCSEs:</b> 8 A-Cs including Maths(A) and English(C)

## Skills

Programming languages	C++, C#
Engines	Unreal Engine 4 & 5, Unity
Other	Visual Studio, OpenGL, Notepad++

## Interests

Games	Red Dead Redemption 2, Rainbow Six Siege, Fallout 4, Skyrim and Destiny 2
Other interests	SCUBA Diving, Food and Sci-Fi