

# DANIEL CROWE

## Gameplay/AI Programmer

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## Experience

### Gameplay Programmer

2024 - Present

#### Larian Studios

- Program reusable features for world class AAA RPGs, such as the GOTY winning Baldurs Gate 3.
- Create functional components for RPG projects, using ECS for performance.
- Work with an in-house engine very similar to Unreal Engine in it's use of blueprints, aswell as AI tools such as behaviour/state trees.
- Create automated/unit tests to make sure features are working correctly.
- Setup clear and simple interfaces in code for designers to use.
- Work with porting across old legacy code.
- Review my teams code to find any potential issues/improvements.

### Gameplay/AI Programmer

2021 - 2024

#### Rockstar Games

- Programmed new game logic in C++ for the upcoming Grand Theft Auto 6 on PS5/Series X|S - many of which are specifically player facing.
- Implemented certain behaviours for AI entities.
- Helped with the design of how some gameplay features functioned.
- Fixed bugs, many of which involved quickly learning legacy code.
- Quickly learnt how to efficiently use/tweak Rockstars in house engine.
- Exposed options for features to scripters, making sure they were versatile to work correctly in all the possible circumstances they could be used.
- Optimised aspects of the code base by using approaches such as timeslicing and multithreading via a system similar to Unreal Engine's task graph.
- Performed multiple senior role duties such as mentoring/leading meetings.

### Gameplay Programmer

2019 - 2021

#### Frontier Developments

- Wrote clean, extensible code in C++ to implement new gameplay features.
- Worked on the bulk of development for Jurassic World Evolution 2 which released on PS5, PS4, Xbox One, Xbox Series X|S and Windows.
- Helped to ship multiple DLCs for Jurassic World Evolution.
- Collaborated with talented programmers and designers to discuss the potential (as well as the technical caveats) of new design ideas.
- Created multi-platform gameplay components in an in-house engine.

### Software Developer

2017 - 2018

#### IDBS

- Worked on features and fixed bugs for a spreadsheet application

## Education

2015 - 2019

### Mathematical Sciences BSc

#### University of Bath

- Included a balanced mix of computer science and maths (about a 60/40 split respectively).
- Learnt mathematics applicable in game development, such as matrix multiplication, rotation representations and probability distributions.

## About Me

I am a game developer with more than five years of professional experience working on AAA games. During my experiences in 3 years of higher education and 6+ years of professional work, I have been self-motivated, hardworking and have responded well to new challenges. I recently worked as a Gameplay/AI programmer at Rockstar North, working on the latest iteration of the critically acclaimed Grand Theft Auto series, and now help create gameplay in AAA RPGs for the multi award winning Larian Studios.

Outside of work I have multiple interests including football, films and board games. I am also a big TTRPG enthusiast - I currently play in a two Pathfinder campaigns and also run one, which has helped improve my RPG design skills.

I am excited to continue to keep learning aswell as using the skills I've already developed to carry on creating truly great gaming experiences.

## Skills

- Proficient in C++, C# and Lua.
- Strong understanding of game development algorithms, patterns and data structures, e.g component systems, update loops, spatial trees
- Comfortable with mathematical concepts useful in game development such as vector math, probability and geometry tests.
- Able to optimise gameplay features to be more performant/use less memory.
- Good eye for helping to design gameplay features satisfying to the player.
- Experienced in using version control systems e.g. Github, SVN and Perforce
- Worked with multiple different engines, including Unreal Engine aswell as having picked up and modified multiple in-house engines.
- Organised in my time management and in meeting development deadlines.
- Been responsible for more senior tasks such as mentoring, driving code architecture and constantly communicating with other departments.