

Pod O'Donnell - Gameplay Programmer

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Personal Summary

A confident and personable Lead Programmer with extensive experience in Unreal Engine and networking systems. Proven ability to lead teams, manage cross-disciplinary tasks, and solve complex technical problems. With a passion for network programming and a diverse background across gameplay and engine development, I am committed to producing performant, scalable solutions in game development with an emphasis on usability and rapid iteration.

Technical Skills

Development Languages: C++, C, C#, Objective-C, Lua, SQL, Java, Javascript, Python, PHP, TCL, bash, HTML, CSS

Game Engines: Unreal Engine (4+5), Unity, multiple proprietary engines

Previous Experience

JAGEX

LEAD PROGRAMMER

AUG2025 –PRESENT

At Jagex I worked on a UE5 project, Runescape: Dragonwilds, where I provided significant contributions across the codebase between adding new features, refactoring existing systems and providing solutions to increase dev iteration speed. The main areas of contribution are:

- Refactoring in house ability system to GAS
- Character movement networking improvements
- Combat systems including creating a multi-trace approach projectile system
- Mass refactoring of systems to a more data-driven designer-friendly approach
- Re-architecting legacy system to use gameplay tags instead of inter-system dependencies
- Adding an AnimBP approach to bridge natised locomotion system with state machine driven anims
- Architected and started UI refactor from legacy api architecture to Epic's ViewModel (MVVM) plugin
- Performance optimisation across systems including gameplay, networking,
- Solely setting up Horde for CI/CD
- Perforce administration including stream restructuring and orchestrating different engine version across multiple projects maintaining integration capabilities between projects
- Leading engineering work in multiple departments including Engine, Gameplay and Networking

BULKHEAD

SENIOR GAMEPLAY PROGRAMMER

MAY2025 –AUG2025

My time at Bulkhead was rather short owing to redundancies across the WARDOGS project. In the relatively short time I was there I contributed to multiple gameplay systems as well as integrating DLSS frame generation in a UE5 project.

TENCENT

GAME ENGINE R&D SPECIALIST

JAN2025 –MAY2025

I worked with multiple Tencent projects to provide support/guidance at the infrastructure level to projects using Unreal Engine. I provided support for making the most of the Unreal Engine ecosystem, helping studios to migrate to Horde for CI/CD, UnrealCGameSync (UGS) for build distribution and making the most of the features that brings like UnrealBuildAccelerator (UBA) for distributed compilation. I also provided guidance on perforce architecture to make engine upgrades as seamless as possible leveraging automated integration system like Robomerge.

SHARKMOB

LEAD CORE TECH ENGINEER

NOV2022 –NOV2024

I joined Sharkmob as a Senior Gameplay Engineer and was promoted to Lead within a year. I contributed to key gameplay systems and infrastructure, including:

- Core gameplay systems
- Public event and AI spawn systems
- Party and matchmaking systems
- Vehicle physics and interactions

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- Complete game flow management (from login to logout)
- Backend persistence and authentication (using gRPC and Protobuf)

I led the development of a high performance replication system built on Unreal Engine's replication graph providing improved data flow to support gameplay responsiveness and reliability. My role involved cross-departmental collaboration to align technical solutions with gameplay objectives. My promotion to Lead involved overseeing a growing team of 12 engineers, of which 5 were direct reports, and directed efforts in areas including:

- Build and infrastructure optimisation
- Technical art/world building
- Networking and backend integration
- Core gameplay systems
- Tool development
- Engine improvements
- Core audio systems

I was promoted to lead after earning the technical director's confidence in my ability to coordinate large efforts between multiple disciplines, lead and plan the execution of features and address emerging problems/concerns that can arise in the process. As a team lead I focussed on building an environment of open communication, trust and autonomy. I was responsible for setting challenging yet achievable performance goals focussing on continuous improvement and facilitating learning and development. As well as championing successes across teams I ensure alignment between my reports and team with the high level vision, keeping them informed of any changes in vision/direction. At a studio level I fostered engagement and well being by encouraging cross disciplinary communication and participation in social events.

CCP GAMES

SENIOR GAMEPLAY PROGRAMMER

SEP2020 –NOV2022

At CCP Games, I initially worked on many gameplay systems along with network programming, implementing a customised replication graph system with a focus on large open world gameplay. My responsibilities covered all areas of gameplay programming including:

- Core gameplay systems
- Replication and Party Systems
- Vehicle physics
- AI
- Mission/quest systems
- Inventory/Interaction systems

In our small, autonomous team, we frequently had to adapt to new areas of the project, requiring flexibility and self-sufficiency. CCP was the first self-published game I worked on, which taught me the balance between providing input and trusting team members to execute. We had excellent collaboration between designers and programmers, often working together to find more efficient solutions without compromising the player experience.

DEEP SILVER DAMBUSTER STUDIOS

SENIOR GAMEPLAY PROGRAMMER

MAY2020 –SEP2020

I joined Dambuster Studios to work on the TimeSplitters Unreal Engine reboot, later transitioning to Free Radical Studio. In this early-stage project, I developed foundational systems and made an effort to provide thorough documentation for future use. As the only senior programmer on a team with eight juniors engineers, I was afforded the chance to develop my mentoring skills by guiding the team while also contributing to key technical areas:

- Implemented new features and game modes
- Restructured and refactored the codebase to align with Unreal Engine workflows
- Translated prototype features from Blueprints to C++
- Mentored junior programmers on development planning and best practices
- Directed team members towards optimised solutions and enforced coding standards through code reviews

SUMO DIGITAL

GAMEPLAY PROGRAMMER

NOV 2016 – MAY 2020

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My first entry to the game industry as a full time gameplay programmer. Working in an Agile environment, contributed to multiple projects including Team Sonic Racing, Hot Shot Racing and co-dev on Forza Horizon 4.

On Team Sonic Racing and Hot Shots Racing I contributed to various areas including:

- Core gameplay systems (weapons & game modes)
- vehicle physics
- AI
- Network programming
- Social & Achievement systems

Being built on an ageing proprietary engine updates to support the current gen (xbox one, ps4 and switch) consoles were required. The multiplayer system was peer to peer with splitscreen support so low level networking work was required. Each platform required working directly with SDKs to support new platform features. Platform features included voice chat, party/matchmaking systems and streaming installs. We took personal responsibility to adhere to platform compliance (XRs and TRCs). Being built from a vehicle simulation system I learned a lot about low level vehicle physics and its representation.

On Forza Horizon 4 content initially a lot of work was required on infrastructure to facilitate working remotely from the developer's site. Once the infrastructure was in place, my responsibilities mostly included working with the underlying vehicle physics system to allow designers to implement vehicle-level features not previously possible.

Education

2011–2016 Queen's University of Belfast – 2.1 MEng Computer Games Design and Development

Relevant modules: AI in Games, Network Programming, Game Engine Architecture

References

- Referees can be obtained upon request

LinkedIn: <https://www.linkedin.com/in/pawd/>