# David Kowalski

Game Developer | Unity & Unreal Engine Specialist


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## Profiles

**GitHub**
dkowalski-dev

**LinkedIn**
davidkowalski

## Skills

**Unity Engine**
Expert
C#, Editor Tools, Performance Profiling

**Unreal Engine**
Advanced
C++, Blueprints, UE5 Features

**Programming Languages**
Expert
C#, C++, Python, HLSL/GLSL

**Game AI**
Advanced
Behavior Trees, FSM, Pathfinding, Navigation

**Physics & Mathematics**
Advanced
3D Math, Collision Detection, Rigid Body Dynamics

## Summary


**Passionate game developer with 5+ years of professional experience** creating engaging gameplay systems and polished player experiences across multiple platforms. Specialized in Unity and Unreal Engine with strong expertise in C#, C++, and game design principles. Proven ability to collaborate effectively with cross-functional teams including designers, artists, and QA to deliver high-quality games on time and within scope.


## Education

**Makerere University** — Bachelor of Science • 3.6 GPA
Computer Science — Kampala, Uganda • 2014 – 2018
Concentration in Game Development. Relevant Coursework: Game Engine Architecture, Computer Graphics, Artificial Intelligence, Physics Simulation, 3D Mathematics, Software Engineering, Data Structures & Algorithms

## Experience

**Cascade Studios** — Lagos, Nigeria
Senior Game Developer — March 2022 – Present

- Lead gameplay programmer on an unannounced AAA action-adventure title built in Unreal Engine 5 for PC and next-gen consoles
- Architected and implemented core combat system including hit detection, combo mechanics, and enemy AI behavior trees serving 15+ enemy types
- Developed custom editor tools in C++ that reduced level designer iteration time by 40% and improved workflow efficiency across the team
- Optimized rendering pipeline and gameplay systems to maintain 60 FPS performance target on all supported platforms, achieving 95% frame rate stability
- Collaborated with designers and QA to resolve gameplay defects and ship stable milestone builds.

## Certifications

**Unity Certified Expert: Programmer**
March 2022
Unity Technologies

**Unreal Engine 5 C++ Developer**
June 2023
Epic Games (Udemy)

## Languages

**English**
Native

**Polish**
Conversational

## Interests

**Game Design**
Mechanics, Level Design, Player Psychology

**AI & Procedural Generation**
PCG, Machine Learning, Emergent Gameplay

**Indie Game Development**
Solo Dev, Game Jams, Community

**Technical Art**
Shaders, VFX, Optimization

## References

**Available upon request**

## Earlier experience

**Pixel Forge Interactive** — Nairobi, Kenya
Game Developer — June 2020 – February 2022

- Core developer on 'Starbound Odyssey,' a sci-fi roguelike that achieved 500K+ sales on Steam with 'Very Positive' user reviews
- Implemented procedural generation systems for level layouts, enemy encounters, and loot drops using Unity and C#
- Designed and programmed player progression systems including skill trees, equipment upgrades, and meta-progression mechanics
- Created robust save/load system supporting cloud saves and cross-platform play between PC and Nintendo Switch
- Integrated third-party SDKs for analytics (GameAnalytics), achievements (Steamworks), and multiplayer networking (Photon)
- Fixed critical bugs and balanced gameplay based on community feedback and telemetry data, releasing 12 post-launch content updates
- Worked closely with artists to implement VFX, animations, and shaders that enhanced visual polish while maintaining performance targets

**Mobile Games Studio** — Remote
Junior Game Developer — September 2018 – May 2020

- Contributed to development of three mobile puzzle games built in Unity, collectively downloaded 2M+ times on iOS and Android
- Implemented UI systems, touch controls, and gesture recognition optimized for mobile devices and various screen sizes
- Developed monetization features including rewarded video ads, in-app purchases, and daily reward systems that increased retention by 25%
- Optimized memory usage and load times for mobile platforms, reducing app size by 35% through asset compression and code optimization
- Collaborated with game designers to balance puzzle difficulty curves and progression pacing using A/B testing data

## Awards

Best Gameplay - Ludum Dare 48 — April 2021
Ludum Dare
Awarded for puzzle game 'Deeper and Deeper' which ranked in the top 5% overall among 3,000+ submissions

Employee Excellence Award — December 2021
Pixel Forge Interactive
Recognized for exceptional contributions to 'Starbound Odyssey' development and dedication to code quality

## Projects

**Echoes of the Void (Indie Game)** 2023 – Present

Solo developer for a narrative-driven 2D platformer built in Unity. Features custom dialogue system, branching story paths, and atmospheric pixel art. Currently in development with demo released on itch.io garnering 5K+ downloads and positive community feedback. Planned Steam release Q2 2025.

View on itch.io

**Open Source: Unity Dialogue Framework** 2021 – 2023

Created and maintain an open-source dialogue system for Unity with visual node-based editor, localization support, and voice acting integration. Project has 800+ GitHub stars and is actively used by indie developers worldwide. Includes comprehensive documentation and example projects.

View on GitHub

**Game Jam Participation** 2019 – Present

Regular participant in Ludum Dare and Global Game Jam events. Created 12+ game prototypes exploring experimental mechanics and art styles. Won 'Best Gameplay' award at Ludum Dare 48 with puzzle game 'Deeper and Deeper' that ranked in top 5% overall.

## Publications

**Optimizing Unity Games for Mobile: A Practical Guide** September 2021

Game Developer Magazine

Technical article covering mobile optimization techniques including draw call batching, LOD systems, and memory management

**Building Modular Dialogue Systems** May 2022

Lagos Indie Game Developers Meetup

Presented talk on designing flexible dialogue systems for narrative games, attended by 60+ local developers

## Volunteer

**Lagos Indie Game Collective** 2020 – Present

Lagos, Nigeria

Active member of local indie game development community. Organize monthly game showcases and provide mentorship to aspiring game developers through code reviews and technical guidance.

**Kigali Game Dev Workshops** 2021 – Present

Kigali, Rwanda

Volunteer instructor teaching basic game programming concepts to middle school students. Led 8+ workshops introducing Unity fundamentals and game design principles.