David Kowalski

Game Developer | Unity & Unreal Engine Specialist

david.kowalski@email.com +234 801 555 0147 Lagos, Nigeria davidkowalski.games
github.com/dkowalski-dev itch.io/dkowalski

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.

Profiles

GitHub

dkowalski-dev

LinkedIn

davidkowalski

Skills

Unity Engine

Expert

C#, Editor Tools, Performance Profiling

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Unreal Engine

Advanced

C++, Blueprints, UE5 Features

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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



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

Certifications

Unity Certified Expert: Programmer March 2022

Unity Technologies

Unreal Engine 5 C++ Developer June 2023

Epic Games (Udemy)

Languages

English

Native

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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

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.