

# Gal Phillip Afik

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References and letters of recommendation available upon request.

## Professional Summary

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Gameplay Engineer with 8 years of experience specializing in VR/MR, PC, Mobile, and Cross-platform development and game systems programming. Proven track record of shipping commercial titles and developing enterprise training simulations. Expert in Unreal Engine and Unity with strong focus on performance optimization and clean, maintainable code architecture.

## Technical Expertise

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### Game Development:

**Engines:** Unreal Engine 5.4/5.0/4.27/UDK (3 years), Unity 2019/2022 LTS/6 (5 years), Godot, GameMaker Studio, Cocos2D

**Technologies:** Blueprint Visual Scripting, C++ Game Programming, Unity C#, Physics Systems, AI/Navigation

**Tools:** Unreal Insights, Unity Profiler, Performance Optimization, Level Design Tools Programming

### Languages & Frameworks:

**Primary:** C/C++ (4 years), C# (5 years), Java (7 years), Python (4 years)

**Web & Scripting:** JavaScript, TypeScript, PHP (2 yrs.), HTML5, CSS3

**Frameworks:** jQuery, Bootstrap, Foundation, SASS

### Database Technologies:

**SQL:** MySQL, SQL Server, Oracle

**Database Tools:** SQL Developer

**Data Integration:** SQL Server Integration Services (SSIS)

### Creative & Design Tools:

**Image Editing:** Adobe Photoshop CC, GIMP, Aseprite

**Vector Graphics:** Inkscape

**UI/UX Design:** Figma, Webflow

**Audio:** Audacity

**Asset Creation:** Asset Forge, KenShape

### Development & Production Tools:

**IDEs:** Visual Studio, Rider, Eclipse, Android Studio

**Version Control:** Git, Perforce, Bitbucket

**CI/CD:** Jenkins, Docker, Amazon Web Services (AWS)

**Project Management:** JIRA, Confluence, Trello

### Certifications

- Unity Certified Professional Programmer Jan 2025
- Unity Certified Associate Programmer Dec 2024
- Google AI Essentials (Coursera) Dec 2024
- AWS Certified Cloud Practitioner Nov 2024
- C++ Certified Associate Programmer (C++ Institute) Oct 2018
- Certified Associate in Python Programming (Python Institute) Oct 2018
- Oracle Certified Associate, Java SE 7 Programmer (Oracle) Jan 2016

## **Game Development Methodologies**

- Agile Game Development: Scrum framework with 2/4-week sprint cycles
- Rapid prototyping: Created 12+ gameplay mechanic prototypes for evaluation
- Feature Implementation: Managed feature implementation cycles from concept to production
- Pipeline Development: Established automated build and test pipelines reducing deployment time
- Documentation: Created comprehensive technical design documents and API documentation

## **Work Experience**

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### **Staff Serious Games Developer, Applied Research Associates – Virtual Heroes**

Nov 2020 – Jul 2024

- Developed 4 VR/MR training simulations targeting multiple platforms (Meta Quest 2/Pro/3, SteamVR) using OpenXR/MetaXR standards:
  - Military special forces training simulation utilizing VR UI/UX (user interface) design and multi-user networking for up to 20 players
  - Military education application for setting up and operating large mission-critical vehicles in a fully VR environment, implementing a fully-featured classroom-style teaching approach
  - Cross-platform compatible Geo-spatial training application using real-time One World Terrain (OWT) interactive data
  - Military intelligence cooperative model sharing application utilizing hand tracking and multi-user real-time interaction over a local network
- Led development efforts across 2 projects using Unreal Engine, specializing in Blueprints and native C++ development.
- Optimized performance using Unreal's Insights tool, ensuring smooth gameplay and efficient resource management.
- Optimized VR performance achieving consistent 90 FPS (from baseline of 45 FPS) across all simulations.
- Built complex UI interactions and animated UI elements using Unreal's UMG system, enhancing user engagement and interface aesthetics.
- Collaborated with cross-functional teams totaling 14 members (4 artists, 1 designer, 7 engineers, 2 QA)
- Mentored 4 junior developers through structured code reviews, pair programming sessions, and technical documentation guidance.
- Led knowledge-sharing initiatives through tech talks about VR design patterns and audio implementation in Unreal 5.1.
- Spearheaded the integration of MetaSounds technology for enhanced audio realism.
- Facilitated client meetings, product demos, and attended industry conferences for customer outreach.

### **Founder & Gameplay Engineer, Mythos Interactive**

Apr 2019 – Present

- Released a collection of 9 games on Steam titled Mythos Interactive Game Collection, showcasing game projects (3 puzzle, 4 arcade-style action, 1 real-time strategy, 1 first-person shooter).
- Founded and operate a studio specializing in 2D and 3D game development using Unity and Unreal Engine.
- Led a team of 6 (2 engineers, 1 producer, 2 voice actors, 1 QA) through full development cycle.
- Received Editor's Choice accolade on Simmer.io for innovative game designs.
- Directed the design and implementation of UI/UX, audio, assets, and gameplay mechanics, putting an emphasis on clean code, design patterns, and scalable solutions.
- Implemented core gameplay systems including arcade combat, procedural level generation, split-screen multiplayer, camera systems, inventory and economy systems, and audio integration.

- Led post-release marketing campaigns and community engagement efforts.
- Developed custom editor tools in Unity/Unreal to streamline workflows and improve project efficiency.

**Software Engineer, Deutsche Bank**

Feb 2019 – Nov 2020

- Developed and maintained SQL Server Integration Services for critical financial Oracle databases.
- Implemented secure CI/CD pipelines and version control procedures for distributed development teams across 4 time zones.
- As Scrum Master, led sprint rituals in an agile environment for a global team of developers and subject matter experts.
- Established security protocols and compliance measures as Technical Information Security Officer
- Organized and led global hackathon with 200+ participants, resulting in 2 projects being implemented in production.

**Campus Coordinator, Zaniac Learning**

Sep 2018 – Feb 2019

- Instructed STEM-based programs for K-8 students, focusing on game design, programming, and robotics.
- Supervised daily operations, ensuring campus efficiency and student safety.

**Associate Developer, Quotient, Inc.**

May 2016 – May 2018

- Developed NoSQL database management system for Smithsonian Institution handling 5M+ artifact records.
- Architected and implemented RESTful APIs supporting concurrent access from multiple client applications.
- Created a configurable education and training center that allows site users to view richly formatted multimedia courses and participate in assessments and online group projects.
- Created configurable CMS enabling non-technical users to manage multimedia content.

## Education

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**B.Sc. Information Systems**, University of Maryland, Baltimore County (UMBC)

Sep 2010 – May 2016

## Other Interests

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<b>Graphic Design:</b>	Creating client-facing materials using Adobe Creative Suite, specializing in logos and web design.
<b>Computer Assembly:</b>	Constructing, providing technical support, and optimizing configurations for PC builds and 3D printers.
<b>Game Design Theory:</b>	Exploring the principles of game design through books, podcasts, and video essays.
<b>Level Design:</b>	Designing levels for games with respect to smooth player progression and appropriate difficulty curve, including modding levels for Unreal Tournament.
<b>Interactive storytelling:</b>	Writing and facilitating branching narrative paths and player-driven choices in a tabletop role-playing setting.