

# MICHAEL C. DILUCCA

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10+ years of experience shipping commercial and internal titles across Unreal Engine 4/5 and Unity. Proficient in C++ and C# with a focus on scalable AI systems, networked gameplay, developer tools, and performance optimization. Shipped single-player, multiplayer, and VR experiences on PC and console. Experienced with behavior trees, FSMs, and procedural systems. Skilled in profiling and debugging across CPU, GPU, and memory, with a passion for building clean, maintainable, and extensible code.

## EXPERIENCE

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### Atom Switch Inc. – Senior Gameplay Engineer | Remote | Apr 2023 - Mar 2025

- Owned AI development from prototype to production, including navigation systems, decision-making logic, and mission coordination using modular architecture and FSMs in Unreal Engine 5
- Built a procedural Mission System Framework with dynamic reward distribution and runtime validation tools
- Created full-featured multiplayer lobby with session management, replication, and game summary screens using EOS
- Collaborated with a team of creatives and designers to shape mission logic and pacing across dynamic content
- Optimized CPU and render thread performance using Unreal Insights and trace data, reducing latency and bottlenecks
- Maintained and iterated gameplay systems post-launch to support major patches and updates

### Flight School Studio – Gameplay Engineer | Hybrid Dallas | Apr 2020 – Feb 2023

- Developed modular gameplay mechanics, ability systems, and UI across Unreal Engine and Unity pipelines
- Implemented responsive input mapping, state transitions, and visual/audio feedback for gameplay responsiveness
- Delivered scalable systems that adapted to evolving requirements, client feedback, and cross-platform deployment
- Worked closely with teams of designers and artists to bring player-facing features from prototype to polished implementation
- Conducted internal playtests and provided detailed gameplay feedback across multiple projects including Stonefly

### The Boeing Company – Senior Game Engineer | Philadelphia | March 2016 – March 2020

- Crafted networked and standalone applications and games across diverse platforms for training, education, and simulation
- Developed VR game for Oculus and Vive, showcasing Boeing's Echo Voyager and marine initiatives with DISCOVERY Education
- Designed system architecture and storyboards for a Mars VR educational game, iterating with DISCOVERY Education team
- Provided QA feedback and gameplay iteration support, including live deployments and tuning passes

### Drexel University – Lead Gameplay Programmer | Philadelphia | Feb 2016 – Mar 2017

- Engineered physics-based real-time movement systems in C++ using Unreal Engine 4, including zero-gravity and orbital dynamics
- Engineered modular AI behaviors and gameplay systems with a focus on player feedback and mechanical depth
- Designed and tuned orbital mechanics system with input from applied mathematics faculty
- Awarded Drexel University's "Best VR Experience" and Distinguished Engineering Project Achievement Award

### Skyless Games Studios – Junior Gameplay Engineer | Philadelphia | Mar 2014 – Apr 2015

- Implemented new assets from a team of artists and integrated new technologies and libraries into multiple titles
- Designed point and click mechanics from scratch to work alongside Unity animation framework
- Integrated audio and lighting into multiple scenes working alongside lead designer and narrative engineer

## EDUCATION

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### DREXEL UNIVERSITY | Philadelphia | Aug 2012 - Apr 2017

**Bachelor of Science; Computer Science (Game Concentration, Artificial Intelligence Track)**

## ADDITIONAL INFORMATION

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- **Tools & Languages:** C++, C#, Lua, Python, Unreal Engine 4 & 5 (Blueprints + C++), Unity, Git, Perforce
- **Technical Expertise:** Gameplay Programming, AI Behavior Trees & FSMs, Navigation & Pathfinding, Multiplayer Systems, Procedural Content, Input Handling, Game Loops, Client/Server Architecture, Performance Optimization, Profiling & Debugging, Tools Development
- **Titles:** INFESTSATION, Shadow Circuit, Island Time, War Remains, ElbitVR (Internal), Airforce Wingman (Internal), Follow the Money (Internal), DISCOVERY Ocean (Internal), DISCOVERY Mars (Internal)