MICHAEL C. DILUCCA

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GAMEPLAY ENGINEER

► *Linking teams and technology to create memorable user experiences* ◄

Diligent, enterprising, and versatile **Gameplay Engineer** offering strong technical expertise, efficient solutions, and the capacity to understand changing business needs. Able to see the forest and the trees, connect the dots, and effectively manage competing priorities in time-sensitive environments. Self-confident and collaborative developer who treats all team members with respect and earns the same in return. Consistently drive projects across the goal line and exceed expectations using active listening, quick study, consensus building, and a determined belief in always finding a way.

APPLIED SKILLS & KNOWLEDGE

- System Design
- Software Development
- Game Development
- Agile Scrum Methodology
- Extreme Ownership

- User Interface Architect
- Strong Communication
- Software Testing
- User Experience Design

- Data Research & Analysis
- Code-Standard Compliance
- 3D Math / Physics
- Time Management
- Team-Oriented

Technical Proficiencies

C# ▪ Java ▪ Python ▪ C++

Unity ▪ Unreal Engine (4+5) ▪ Adobe Creative Cloud

PROFESSIONAL EXPERIENCE

FLIGHT SCHOOL STUDIO - Dallas, TX ▪ 2020 – 2023

Interactive Developer
My time here has always kept me on my feet. Every project required different skill sets and progressively more challenging requirements. Projects designed for installations at events around the US, I made every project my own. I would typically find myself in a small team with a designer, creative, and a producer to complete large, scalable projects.

Glow Tennis (American Express)
- Develop a system that used HTC trackers and base stations to track user velocity and acceleration.
- Program a full pong game with intuitive items following ever-changing requirements based on bi-weekly client feedback.
- Provided live support at the 2022 US Open with swift bug fixes, seamless deployment via teamviewer.

Krazy Kart (AT&T)
- Crazy Taxi meets SSX Tricky at Pebble Beach for a golf cart installation featuring Jordan Speith.
- Programmed character controller and leaderboard side application.
- Integrated input system to support multiple platforms.

RUMBLE Match
- A mobile match 3 game that released simultaneously with the WWE animated film, Rumble.
- Programmed comic book features that are used to add a fun and intuitive story element to the game between levels.
- Add analytics, online store, and ads to support micro transactions.

ELBIT VR
- A military company looking to showcase their various products in a single application.
- Designed multiple shaders for night vision and indirect vision mechanics.
- Programmed a waypoint system for the ride-like experiences.
- Deployed and tested application on the Oculus Quest.

<u>USAF VR</u>
- Update an existing Unreal application for US Air Force recruitment to include target shooting mechanics.
- Add a tutorial to the flight sim to include shooting mechanics.
- Fix various bugs carrying over from the legacy build.

THE BOEING COMPANY - Ridley Park, PA ▪ 2016 – 2020
Senior XR Developer (Contractor through Belcan)
Built team of 15 developers from the ground up operating in a start-up mode to identify, develop, test, and apply new technologies for a variety of business applications. Interface with key stakeholders including executive management, military generals, and astronauts to secure project funding. Travel across the US to interact directly with customers to understand and negotiate project details, budget, and terms. Serve as lead developer and a founder of the XR Center of Excellence (CoE).

<u>Shared Virtual Environment</u>
- Imported company proprietary data to display in a networked environment for the user to interact with other users on a global basis in a commonly shared surrounding.
- Created animations to demonstrate aircraft functionality regarding flight, takeoff, and landing, as well as the size of the aircraft compared to the user and environment.
- Built interactive settings where people can communicate with one another about model designs or factory layout.

<u>Aircraft Technical Field Manual</u>
- Funneled various forms of data into a single presentable multi-platform format.
- Designed an intuitive platform agnostic UI, incorporating feedback and analytics to improve the UX. Complete with voice-recognition, unique user profiles, and secure login.
- Submitted 80-page US Patent.

<u>Discovery Ocean (DISCOVERY Education)</u>
- Created a virtual experience for Oculus products to introduce users to the Echo Voyager, a Boeing UUV (Unmanned Underwater Vehicle).
- Developed application for users to learn about marine life, the environmental issues impacting the oceans and the actions Boeing is taking to advance marine technology.

<u>Discovery Mars (DISCOVERY Education)</u>
- Designed the system architecture and storyboard of the game through an iterative process with the customer and stakeholder.
- Originated a Martian virtual environment for the user to learn about Mars and the requirements for humanity to survive on the planet through a series of multiple experiences including:
  o Rover repair, allowing the user to attach replacement parts to the curiosity rover, where every part placed educates the user on its functional use, and upon completion, provides the opportunity to interact with a console to program the rover on a grid-based mission.
  o Growing a plant in a lab where the user must filter soil from the Martian surface and genetically modify seeds to ensure the best chance for survival.

SHADOW CIRCUIT (DREXEL UNIVERSITY) - Philadelphia, PA ▪ 2016 – 2017
Project Lead
Directed team of 12 developers for senior design project to create a VR futuristic handball game using Unreal Engine 4.
- Designed unique game mechanics with C++ as an integral part of the central game loop (Gravity Wells, Gravity Whip, Goal Looping); programmed multiple game aspects (AI, Scoring, Platform Mechanics, and Main Menu Interaction).
- Released Shadow Circuit to the [Steam Marketplace](#) in March 2017.
- Awarded Drexel University's "Best VR Experience" by both the College of Computing & Informatics and the Antoinette Westphal College of Media Arts & Design.
- Received Distinguished Engineering Project Achievement Award.

EDUCATION

Bachelor of Science (B.S.) in Computer Science
(Game Programming Concentration, Artificial Intelligence Track)
DREXEL UNIVERSITY - Philadelphia, PA ▪ 2017