

Eric Ciocca

GAME DEVELOPER · SOFTWARE ENGINEER

CONTACT

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PROFILE

Game developer since 2002 — consoles, PC, mobile, AR, and online casino. I focus on the craft underneath the experience: real-time networking, augmented reality, physics simulation, and the tools that make things feel alive.

SKILLS

Languages

TypeScript

JavaScript

C++

C#

C

Java

Obj-C

PHP

Platforms & Engines

Unity

Cocos Creator

BabylonJS

iOS

Android

PS2

Xbox

Specializations

Augmented Reality

ARKit

ARCore

Computer Vision

Real-Time Networking

Physics Simulation

EDUCATION

M.S. Computer & Electrical Engineering

University of Massachusetts, Amherst

1999–2002 · GPA 3.63

Thesis: Application-Level Fault Tolerance

B.S. Computer & Electrical Engineering

University of Rhode Island

1995–1999 · GPA 3.85

Braun-Lengyel Fellowship · Presidential Award

EMPLOYMENT OVERVIEW

Penn Gaming Studios

2019 – Present

Manager, Software Engineering — Greenfield, MA

- Manage client software engineering for web-based casino games: slots, cards, roulette, all interfacing with a real-money wallet.
- Created and maintain the internal **Slots Framework** — a shared toolkit keeping common functionality consistent across titles.
- Developed the **Universal UI Framework (UUI)** to ensure consistent user experience across all titles.

HitPoint Studios

2010 – 2019

Senior Engineer — Greenfield, MA

- Nine years building AR and mobile experiences for clients including Niantic, Disney, Hasbro, Caesars/LINQ, Crayola, Warner Bros., PopCap/EA, Nokia/Dreamworks, and Universal Kids.
- Created the **HART SDK** — a Unity abstraction layer supporting ARKit, ARCore, Wikitude, Vuforia, 8thWall/XR, and others from a single codebase.
- Specializations: 6DOF AR tracking, real-time multiplayer networking, geolocation, device sensors.

The Lighthouse School

2018 – 2019

Software Engineering Instructor — Holyoke, MA

- Taught 3 semesters of software engineering to high school students.

Persuasive Games (Ian Bogost)

2008

Programmer — Atlanta, GA

- PC port of *A Slow Year* — integrated a full Atari 2600 emulator for Ian Bogost's BAFTA-nominated experimental title.
- Airport Security / Snowglobe Collectible* (iOS) — 3D physics snowglobe sim with geolocation-based unlocks and accelerometer shake.

Electric Sheep Company

July 2008

Software Engineer — New York, NY

- Managed code integration on a cross-platform (macOS, Linux, Windows) fork of the Second Life viewer, merging upstream Linden Labs changes into a proprietary client.

Golden Goose Games

2006 – 2010

Programmer — Amherst, MA

- Casual PC game development for iWin and WildTangent. Ported sprite renderer to Direct3D; built particle system for weather and explosion effects.

Minerva Software

2005 – 2006

Programmer — Northampton, MA

- Built the Prometheus Sales Training Simulator in Gamebryo — a real big-box retail environment with dynamic inventory and interactive customers.
- Developed MFC tooling allowing non-programmers to script customer interactions via a flowchart interface.

Cyberlore Studios

2002 – 2005

Programmer — Northampton, MA

- Console game development on Windows, PS2, and Xbox. Titles include *Risk: Global Domination*, *Playboy: The Mansion*, and *Godzilla: Save the Earth*.
- Specializations: P2P networking via GameSpy SDK, voice chat, Xbox Live Aware SDK, cross-platform storage systems.

References available upon request.

PENN GAMING STUDIOS — 2019–PRESENT

*Manager, Software Engineering · Mobile casino gaming (Cocos Creator, BabylonJS)***Larry's Legendary Gold**

Slots · Cocos Creator · Slots Framework

Hollywood Murder Mystery

Slots · Cocos Creator · Slots Framework

Neon Vault

Slots · Cocos Creator · Slots Framework

Lucky Cat Baccarat

Cards · Cocos Creator

Barstool Roulette

Roulette · BabylonJS

Dollar Dollar Energy

Slots · Cocos Creator · Slots Framework

Wuji Dragon

Slots · Cocos Creator · Slots Framework

Piggy Chef Showdown

Slots · Cocos Creator · Slots Framework

Space Bison

Slots · Cocos Creator

Slots Framework — Cross-project toolkit of shared functions across all slots titles.**Universal UI Framework (UII)** — Shared UI component library for consistent UX across all titles.

HITPOINT STUDIOS — 2010–2019

*Senior Engineer · AR & real-time networking for entertainment and retail clients***Gettysburg Battlefield AR**

Programming Lead · Niantic Studios · 2020–2021

- Prototype app showcasing Niantic's AR and Geolocation SDK.
- Interactive tour guide and educational mini games.
- Compete with other players to "catch" free-roaming soldiers and battlefield landmarks.

Explore Interactive MindLabs

Programming Lead · Explore Interactive · 2019–2020

- Educational AR app with virtual gameboard; up to 4 students via Photon networking.

Ellen's Game of Games — Buckin' Blasters

Engineer · Warner Bros · 2020

- Created minigame integrated with app economy, security, and asset pipeline.

Aisle411 (Walgreens, DisplayData)

Engineer · Aisle411 · 2017–2019

- Google Tango AR navigation, product location, and promotion in real-world stores.

Kody Kapow: Village Defender

Engineer · Universal Kids · 2017

- AR minigame using HitPoint's HART camera-position tracking technology.

Hasbro Drone R&D

Engineer · Hasbro · 2018

- Autonomous drone navigation via IR beacons; hand-tracking flight control.

Fate: Undiscovered Realms / The Cursed King / The Traitor Soul

Engineer · WildTangent · 2008–2011

- Multi-dungeon architecture; modular content pipeline for artist/fan asset additions.

Bubble Planet

Programming Lead · Niantic Studios · 2020–2021

- Bubble-popping puzzles on a real-world scale using AR and geolocation.
- Gameplay variations based on weather and local popularity.

Color BlastAR

Programming Lead · Crayola / Google / Apple / Lenovo · 2016–2018

- First-person shooter on Google TANGO with 6DOF AR tracking.
- Ported to ARKit (iOS launch title) and ARCore; added Lenovo Mirage support.

Play Caesars

Programming Lead · Caesars/LINQ Casino · 2018–2019

- Mobile AR game with virtual board overlaid on a physical drink coaster.
- Multiplayer "Beer Pong" synced via AR networking.

Disney Magic Timer

Engineer · Disney Interactive / OralB · 2018

- Extended AR minigame with ARCore/ARKit surface tracking.

Dragon Adventure: World Explorer

Engineer · Nokia / Dreamworks · 2014–2015

- Used Nokia here.com maps to procedurally generate levels from user location.
- Social media integration; AWS caching for pre-processed level data.

Plants vs. Zombies / Peggle / Peggle Nights / Solitaire Blitz

Engineer · PopCap / EA Games · 2013

- Added challenge modes, extra content, and advertising to existing mobile titles.

Other HitPoint titles

Engineer · HitPoint Studios

- Build-A-Lot: Monopoly Edition, Build-A-Lot: The Elizabethan Era, Doctor Despicable's Dastardly Deeds, Marooned 2, Guardians of Magic: Amanda's Awakening, Marvel's Avengers: Run Jump Smash!, Bejeweled (Windows 8 port), Vikings: Raiders of Riches.

HART SDK — Unity-based AR abstraction layer supporting ARKit, ARCore, Wikitude, 8thWall/XR, Vuforia, and others; 6DOF tracking, surface detection, image recognition.

PERSUASIVE GAMES (IAN BOGOST) — 2008

Programmer · iPhone (Xcode / OpenGL ES) · PC

A Slow Year

Programmer · PC Port · 2010

- Integrated a full Atari 2600 emulator for Ian Bogost's BAFTA-nominated experimental game, originally written in 6502 assembly.

Airport Security / Snowglobe Collectible

Programmer · iOS

- Collectible snowglobe app; geolocation-based unlocks at real-world airports; accelerometer-driven 3D snow physics.

GOLDEN GOOSE GAMES — 2006–2010

Programmer · Windows (Visual Studio)

Garden Defense

Engineer · iWin

- Ported 2D sprite system to DX3D surface rendering; built particle system (wind, rain, explosions).

Blasterball 2 & 3, Polar Bowler, Polar Golfer, Shooting Stars Pool

Engineer · WildTangent

- HOT (HTML-on-Texture) library integration; server-distributed advertising.

Chrysler Golf Challenge

Engineer · WildTangent

- Centralized notice config, tournament levels, live score leaderboard.

Underwater Adventure

Engineer · WildTangent / Wanako Games

- Windows screensaver mode; load-time investigation and fixes.

MINERVA SOFTWARE — 2005–2006

Programmer · Windows (Gamebryo / MFC)

Prometheus Sales Training Simulator

Programmer · Minerva Software

- Gamebryo-based platform modeling real big-box retail with dynamic inventory and configurable layouts.
- MFC flowchart tooling for non-programmer scripting of customer interactions.

CYBERLORE STUDIOS — 2002–2005

Programmer · Windows, PS2, Xbox

Playboy: The Mansion

Programmer 2 · PS2 / Xbox / PC · 2004

- Gameplay, model placement, character conversation systems.
- Photo-shoot image system scaled across PS2/Xbox/PC storage limits.
- Implemented Xbox Live Aware SDK.

Risk: Global Domination

Programmer 1 · PS2 · 2003

- UI, 3D model animation, P2P network play via GameSpy Peer SDK / SNSystems NDK.
- Voice chat via Logitech USB headset and GameSpy Voice SDK.

Godzilla: Save the Earth

Programming Consultant · Pipeworx / Cyberlore · PS2 · 2004

- Consulted on GameSpy online multiplayer implementation.