## Connor Brennan, PhD

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Highly experienced Senior Unity Engineer and AI specialist with 6+ years of hands-on game development. Adept at building multiplayer, AI-driven experiences in Unity, optimizing resource loading and rendering pipelines, and leading multidisciplinary teams under tight deadlines. My background spans academia, AI, and commercial game releases, equipping me with a unique edge in creating innovative, high-performance gaming solutions.

#### PROFESSIONAL EXPERIENCES

## EGO | San Francisco, CA Lead Game Developer | 2024-2025

- Designed and developed an Al-powered Roblox experience with over 700k plays.
- Created an Al-powered social deduction game in Unity (Budget ~200k).
- Built a procedurally generated 3D crafting survival game with open-world locomotion and building mechanics (Budget ~1 million).
- Led a team of 6 engineers, collaborating with art and marketing for product-market fit.

# FUTURE STATE UNIVERSITY | San Francisco, CA CTO | 2023-2024

- Supervised a team of 10+ engineers, artists, and researchers to build a 3D Al-powered educational game.
- Achieved product-market fit with paid trials in multiple Bay Area schools

#### FRACTAL ENTERTAINMENT | Seattle, WA

#### Founder / Programmer / Designer | 2013-2016

- Launched an online browser-based MMORPG (SideQuest, steam <u>link</u>) attracting 30,000+ users in the first 3 months.
- Led the Unity-based development of the game's core engine, scripting system, UI, and networking solutions (40 zones, 100s of skills and enemies, thousands of items).
- Secured >\$100,000 in funding, showcasing strong project management capabilities.

## POLYGON MAGIC | Tokyo, Japan Game Engineer | 2011-2013

- Contributed to Sengoku Kingdom, a multi-million dollar title published by Gree.
- Handled critical game systems independently, ensuring smooth implementation.
- Optimized network traffic for efficient and robust multiplayer experiences.

#### MILA | Montreal, QC, Canada

#### Postdoctoral Researcher in Machine Learning | 2022-2023

- Led teams training state-of-the-art language and vision models with billions of parameters.
- Deployed large-scale reinforcement learning architectures for adaptive Al agents.
- Built and maintained 3D environments for reinforcement learning experiments.
- Managed multi-million dollar research grants with extensive computing resources.
- Published in leading conferences (NeurlPS).

#### **UNIVERSITY OF PENNSYLVANIA**

Philadelphia, PA 2016-2022

#### PhD Candidate in Neuroscience and Al

- Developed predictive ML methods for complex behavioral forecasting in organisms.
- Created a toolkit for extracting dynamics from biological and artificial neural networks.
- Contributed to modeling of working memory in humans.
- Published in top journals (*Nature Communications*, *Elife*).
- Awarded Google PhD Fellowship (2020-2022)

#### **SELECTED GAME PROJECTS**

#### Fortnite maps (Creator profile)

2024

• Used Verse language to develop complex combat and upgrade systems.

#### SideQuest: Reanimated (Steam store page and demo)

2023

- Modernized the original MMORPG with server-client and P2P architectures.
- Upgraded quests, mechanics, and overall gameplay.

SideQuest 2014

- Unity-based MMORPG published on Kongregate.
- Streamed assets for browser-based optimization.
- Featured real-time PvE and PvP combat.

#### **SKILLS**

- 1. **Programming Languages:** C#, C++, C, Python, Unity, Unreal Engine, HLSL, Java, JavaScript
- 2. ML Skills: Machine Learning at Scale, HPC, Reinforcement Learning, Large Language Models
- 3. Core Game Dev: Multiplayer Networking, Rendering, Resource Optimization
- 4. Administrative: Team Leadership, Project Management, Funding Acquisition