

JOSEPH BROWN
AI Combat Designer | Game Systems Engineer

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PROFESSIONAL SUMMARY

Specialized AI Combat Designer with proven expertise in developing intelligent enemy behaviors, adaptive combat systems, and scalable AI architectures in Unreal Engine. Combines strong technical programming skills (C++, Blueprints, Python) with deep understanding of player psychology and combat pacing. Experienced in leading cross-functional teams and delivering complex AI systems that enhance player engagement through dynamic, readable, and balanced encounters.

CORE COMPETENCIES

AI Combat Design

- Behavior Tree Architecture & State Machines
- Adaptive Enemy AI & Dynamic Difficulty Systems
- Combat Pacing & Player Psychology
- NPC Archetype Design & Implementation
- Multi-Agent AI Coordination
- Performance Optimization for AI Systems

Technical Implementation

- Unreal Engine 5 (Blueprints & C++ Integration)
- AI Debugging & Profiling Tools
- Modular System Architecture
- Real-time Balance Tuning Systems
- Data-Driven AI Configuration
- Cross-Platform Performance Optimization

Development Leadership

- Agile/Scrum AI Team Leadership
- Technical Documentation & Knowledge Transfer
- Stakeholder Communication & Feature Planning
- Quality Assurance & Testing Protocols
- Version Control (Perforce, Git) & Collaboration Tools

PROFESSIONAL EXPERIENCE

Unreal Engine Programmer

Unusual Crypt Studios | 05/2025 - Current

Description:

Lead a cross-disciplinary team of designers and artists through complete game development lifecycles, ensuring technical feasibility and creative vision alignment. Architect and implement innovative gameplay systems that differentiate our titles in the competitive gaming market, with particular focus on performance optimization and player engagement.

Key Responsibilities:

- Spearhead technical design and implementation of unique game mechanics and systems, leveraging advanced Blueprint architecture and C++ programming to create distinctive player experiences
- Design and optimize complex animation blueprint networks and montage systems that enhance gameplay fluidity while maintaining 60+ FPS performance standards
- Establish and maintain scalable Blueprint frameworks and coding standards that improve development efficiency and reduce technical debt across projects
- Coordinate Agile development workflows using Jira, Confluence, and Trello to track deliverables, manage sprint planning, and ensure milestone completion
- Mentor team members on technical best practices, performance optimization techniques, and efficient asset integration workflows
- Collaborate with designers and artists to prototype and iterate on gameplay concepts, providing technical guidance on implementation feasibility and performance implications

Junior Software Engineer

Revature | Remote | 04/2025 - 06/2025

- Design and implement scalable backend systems with focus on real-time data processing for interactive applications
- Collaborate with distributed development teams using Agile methodologies and comprehensive documentation practices
- Develop modular, maintainable codebases with emphasis on performance optimization and clean architecture
- Contribute to debugging, testing, and deployment processes in fast-paced development environments

Unreal Project Lead Intern

Escape Room | Remote | 02/2025 - 04/2025

- Led cross-functional team delivering AR-enhanced interactive features within tight project timelines
- Integrated complex character customization systems with underlying gameplay mechanics
- Optimized asset pipelines and performance benchmarks for stable user experience across target platforms
- Maintained project documentation and milestone tracking using industry-standard project management tools

Lead AI Combat Designer & Technical Designer

Independent Game Development | Remote | 02/2024 - 02/2025

Key Project: "Blood and Sand" - Advanced ARPG Combat Simulation

- Architected comprehensive AI combat system featuring multiple enemy archetypes with distinct behavioral patterns and adaptive difficulty scaling
- Designed and implemented behavior trees for intelligent enemy decision-making, creating unpredictable yet readable combat encounters
- Developed modular AI framework supporting rapid iteration and real-time parameter tuning for balance adjustments
- Created 3.5km interactive combat arena with integrated puzzle mechanics, custom movement systems, and environmental AI interactions
- Optimized AI performance achieving stable frame rates while supporting multiple concurrent intelligent agents
- Established development pipeline using Perforce for version control and Confluence for technical documentation
- Collaborated with remote team ensuring knowledge transfer and maintainable codebase architecture

Technical Achievements:

- Implemented scalable behavior tree system supporting 15+ unique enemy archetypes
- Achieved 60+ FPS performance with 20+ concurrent AI agents in complex combat scenarios
- Created data-driven AI configuration system enabling rapid prototyping and iteration
- Developed custom debugging tools for real-time AI behavior analysis and tuning

AR-Enhanced Interactive Systems

Project Lead | Remote | 02/2025 - 04/2025

- Led team integration of augmented reality features with existing gameplay systems
- Optimized performance for mobile AR platforms while maintaining visual fidelity
- Delivered project on schedule with comprehensive documentation for future development

EDUCATION

Bachelor of Science: Game Design

Full Sail University | Florida | Graduated: 01/2025

Specialized Focus: AI Systems Engineering, Combat Design, Blueprint Architecture

Relevant Coursework: Advanced Gameplay Systems, AI Programming, Level Design Theory, Technical Game Design

Academic Projects:

- Multi-agent AI coordination system for tactical combat scenarios
- Dynamic difficulty adjustment algorithms based on player performance metrics
- Performance optimization techniques for real-time AI processing

TECHNICAL SKILLS

Game Engines & AI Tools

- Unreal Engine 5: Advanced Blueprints, C++ Integration, Behavior Trees, AI Perception, Pawn Sensing
- AI Frameworks: Custom State Machines, Navigation Mesh Systems, AI Debugging Suite
- Performance Profiling: UE5 Profiler, AI Performance Analysis, Memory Optimization

Programming Languages

- C++: Advanced (AI System Architecture, Performance-Critical Code)
- Python: Advanced (AI Scripting, Data Analysis, Tool Development)
- Java: Proficient (Backend Systems, Cross-Platform Development)
- SQL: Proficient (Player Data Analysis, AI Behavior Analytics)

Development Tools & Workflows

- Version Control: Perforce (Advanced), Git, GitHub
- Project Management: Jira, Confluence, Trello, Agile/Scrum Methodologies
- Documentation: Technical Writing, API Documentation, Knowledge Transfer
- Testing: AI Testing, AI Behavior Validation, Performance Benchmarking

KEY PROJECTS & ACHIEVEMENTS

"Blood and Sand" - Advanced AI Combat System

Technical Leadership | 02/2024 - 02/2025

- Challenge: Create engaging AI opponents for fast-paced ARPG combat with dynamic difficulty scaling
- Solution: Developed modular behavior tree architecture with data-driven configuration system
- Impact: Delivered 15+ unique enemy archetypes with adaptive behaviors, achieving 95% positive playtester feedback on combat engagement

Technical Highlights:

- Custom AI debugging suite for real-time behavior analysis
- Performance-optimized system supporting 20+ concurrent AI agents at 60+ FPS
- Modular architecture enabling rapid prototyping of new AI behaviors

"Limitless Runner" - Endless Procedural Game

Game Developer | Published on Steam

- Developed infinite procedural generation algorithm that continuously spawns and culls platform tiles
- Created 12 distinct animation states for mouse protagonist with dynamic grappling hook mechanics
- Implemented 5 platform types: flat, ascending, descending, swing left, and swing right patterns
- Designed strategic power-up system with slow-motion, invincibility, and double-jump abilities
- Achieved 60+ FPS performance through efficient object pooling and culling systems

- Successfully published commercial release on Steam platform

AR-Enhanced Interactive Systems

Project Lead | 02/2025 - 04/2025

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PROFESSIONAL INTERESTS & CONTINUOUS LEARNING

- Emerging AI Technologies: Machine Learning applications in game AI, procedural behavior generation
- Industry Research: Regular study of AI combat design patterns in AAA titles and indie innovations
- Community Engagement: Active in game development communities, sharing AI implementation knowledge
- Technical Writing: Contributing to AI design documentation and best practices resources

ADDITIONAL QUALIFICATIONS

- Remote Collaboration: Extensive experience with distributed teams and asynchronous development workflows
- Mentorship: Experience onboarding junior developers and sharing technical knowledge
- Problem-Solving: Proven track record of debugging complex AI systems and optimizing performance bottlenecks
- Player-Centric Design: Strong focus on user experience and accessibility in AI behavior design