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

Junior Software Engineer
Revature | Remote | 06/2025 - Present
• 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