Dustin Biser

Senior Gameplay Designer - Enemy AI

Projects

3rd Person Action, Combat Demo

Unreal Engine 4

Video Link: https://www.dustinbiser.com/projects

Goal was to recreate the isometric combat from Death's Door (by Acid Nerve) with changes to allow for faster switching between player abilities and tweaks to create a more balanced and varied combat experience.

- Enemy Design of 3 archetypes featuring melee, AOE, and ranged attacks
- Script Enemy AI Behaviors using Behavior Trees
- Enemy Attack Ticketing System to coordinate enemy attacks
- Player 3C design and implementation for isometric perspective
- Player attack input buffering and animation canceling
- Montage notify damage windows with custom trace shapes per attack
- Aim Assist logic for ranged abilities using gather, filter, score method
- VFX design for all attacks and hit-effects
- Screen-Shake, Hit-Pause, Hit-Effects driven from data-table assets

Experience

3rd Person ARPG (Unannounced) Senior Gameplay Designer Thought Pennies Entertainment Oct 2024 - Nov 2024

May 2022 - Mar 2023

Unreal Engine 5

[Studio lost funding, project canceled]

Co-Op PvE Action RPG with a cast of unique heroes and playstyles, a mix of melee and ranged combat, and monstrous enemies set in a dark fantasy world.

Supported Enemy and Combat Deliverables by tuning enemy attack animations, overhauling AI attack rules, and enhancing feedback of player actions.

- Enemy Attack Logic Reworked Enemy attack rules to be less random. Used utility scoring based on distance to player, angle to player, cooldown duration, and time-based multipliers to select appropriate attacks in combat.
- Enemy Melee Attack Tuning Collaborated with animators to revamp enemy melee attacks to have proper windup durations and snappier follow-throughs so attacks feel dangerous yet are easily perceived through clearer telegraphing.
- Enemy Audio Barks Cleaned up attack bark timings so audio cues were played before attacks begin to give players ample time to perceive and react to oncoming attacks. Heavier attacks used longer, more threatening audio barks to help differentiate and communicate severity to players.
- Enhance Combat Feel Created hit-pause and camera shake logic driven from Gameplay Cues to punch up combat feel of player attacks. Data-driven setup to play heavier screen effects based on severity of enemy reaction (flinch, falter, stagger, death).
- **Niagara Weapon Effects** Revamped weapon ability effects by creating stronger particle bursts and emissive highlights so abilities read more clearly during fast-paced combat.
- Wall Squeeze-Through Smart Objects Created Blueprint Actors for Scenario Designers to drop into levels to support "squeeze-through" animations that move characters through large cracks within static-mesh walls. Used motion warping and level sequencer camera transitions for close up, immersive feel.

Portfolio: <u>dustinbiser.com</u> Email: <u>dustinbiser@gmail.com</u> Cell: (240) 687-6260

Bio

My passion is working across teams to bring out the best in our moment-to-moment gameplay through strong collaboration. I'm a technically skilled designer that can take features from initial design spec to shipping quality. My specialty is Enemy Design, AI Behaviors, Combat Design, and Abilities.

Skills

- Unreal Blueprints
- Enemy Design
- Al Behavior Trees
- FSMs Logic Driver Pro
- GAS Gameplay Ability System
- Animation Blueprints
- Mechanics Design
- Character Animation
- Niagara Visual Effects
- C++ Programming

Software

- Unreal Engine 5
- Visual Studio
- After Effects
- Adobe Illustrator
- Adobe Photoshop
- Excel
- FMOD
- Blender
- Perforce, Git

Education

University of Maryland College Park, MD

 B.Sc. Mathematics
 2008-2012

 B.Sc. Physics
 2008-2012

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Experience (Continued)

Sci-fi 3rd Person Shooter (Unannounced) Gameplay Designer Level 2

Humanoid Origin July 2023 - Sept 2024

Unreal Engine 5

[Studio lost funding, project canceled]

Single-player, sci-fi cover shooter with mix of ranged weapons, close-quarter combat, gadgets, stealth, and powerful abilities to fight against an exciting cast of humanoid, non-humanoid, and robotic enemies.

Support moment-to-moment gameplay including Enemy Design, AI Behaviors, Enemy Melee, Enemy Abilities, Cover Locomotion, and Player Abilities.

- Enemy Design Led efforts in the creation of two Enemy classes: a rangedbased robotic creature, and a humanoid brawler. Focused on risk-reward countering of enemy moves with clear telegraphing of attacks through strong posing, vfx, and audio feedback.
- Enemy Melee Animation driven, volume trace method for detecting melee hits with player and objects that derives damage and audio data from attack data tables. Collaborated with animation team on metrics and timing of attacks.
- Enemy Abilities Setup many of our character abilities using GAS to support custom movement, character attacks, and ranged abilities. All Enemy attacks were implemented as GAS Abilities and activated from Behavior Trees.
- Enemy Perception Worked with AI team to design rules that govern AI awareness of the player along with state machine transitions for neutral, becoming aware, searching, and in-combat with the player.
- Enemy Damage States Collaboration with gameplay teams in designing and implementing rules for applying Flinch, Falter and Stagger Hit Reactions to Enemies based on weak-point definitions and damage build-up over time.
- Player Melee Collaborated with animators to create a synced animation system for player melee combos using input buffering and animation canceling. Used a gather, filter, score method to orient attacks toward best targets.
- Cover Locomotion System for detecting nearby cover nodes, and allowing characters to enter cover, move along cover, and peek and shoot using linked animation layers, additive pose overlays, and motion warping.

Diablo IV Senior Software Engineer Blizzard Entertainment Mar 2020 - Aug 2021

Proprietary Engine

Created Visually Oriented Design pitches and mock-ups aimed at solving issues from playtest feedback. Presented designs to game directors, and design leads.

- Vista Lookout Points Motivating player exploration using anchoring goals throughout the World that drive content discovery and sense of progression.
- Town Stages Player's feel their impact on the World by clearing dungeons and having nearby towns 'level up' providing progression in the form of upgraded shops and unlockable quests.
- Campfire System Combining Checkpoints, Shrine Buffs, and Dungeon Modifiers into a single system that offers greater strategy and replayability of dungeons.
- Dynamic Difficulty Scaling Special dungeon challenges that allow players to increase dungeon difficulty for greater XP and loot for a limited time.
- Refillable Potion System Keep players engaged in core-combat loop with auto-refilling potions that heal, buff, and combine in strategic ways so players don't have to leave dungeons early when out of potions.

Bio (Part2)

Earlier in my career I worked as a software engineer focusing on gameplay and rendering. During my first few years in the industry I knew I wanted to become a designer so I learned and contributed to the gameplay of the projects I worked on as much as I could.

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Experience (Continued)

Star Wars Jedi: Fallen Order Software Engineer Respawn Entertainment July 2017 - Jan 2020

Unreal Engine 4

3D Holo-Map System for helping players navigate playable space and track exploration progress throughout Jedi's six planets.

- Design collaboration with UI, Tech Art, and Level Design Teams.
- Implemented map system and editor tools using Unreal Blueprints and C++.
- Worked with Tech Art to simplify map level geometry for best readability.
- Worked with Level Design in naming and sectioning levels into discrete parts for map display.
- Created intuitive camera controls for panning, zooming, rotating, and snapping view to map regions.
- Helped construct playtest sessions to measure map's success in ease of use, and aiding the player during navigation and exploration.

Apex Legends

Software Engineer

Respawn Entertainment Feb 2017 - July 2017

Source Engine

Supported game teams through graphics improvements and run-time optimizations.

- Screen-Space Reflections for adding dynamic indirect lighting to the game's environments.
- Particle System SIMD Optimizations for better CPU side performance of particle effects at run-time.