Thomas Hoeg, MIT, MSE

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TECHNICAL GAME DESIGNER

Technical Game Designer with extensive AAA game development experience across FPS, MMORPG, and mobile platforms. Skilled in AI systems design, gameplay scripting, game mechanics, and team mentorship. Proficient in Unreal Engine, Unity, and proprietary engines, with strong programming expertise in C++, C#, Blueprint, Lua, and proprietary scripting languages. Recognized for shipping award-winning titles, streamlining workflows, and driving cross-discipline collaboration from prototype to release.

AREAS OF EXPERTISE

Technical Design | System Design | Game Design | Prototyping | Balancing & Tuning
Gameplay Scripting | AI Systems | Debugging | Mentoring & Training | Cross-Discipline Collaboration

TECHNICAL SKILLS

Unreal Engine | Unity Engine | Proprietary Engines (Zenimax, Bungie, Insomniac)
Blueprint (Unreal) | C++ | C# | Lua | JavaScript | GSC (Call of Duty) | Radiant | Perforce | JIRA

EXPERIENCE

Zenimax Online Studios, Remote   **November 2021 – October 2025**
Sr. Technical Designer
Projects: Unannounced Action MMORPG (Cancelled)
Coordinated development of combatant AI systems including decision making, action execution, awareness, weapons, and abilities, driving best-in-class AI combatants.
- Architected AI behavior system (utility-value model), enhancing decision-making depth and system scalability.
- Built AI awareness and combat systems, enabling responsive pre-combat and in-combat state transitions.
- Created flexible AI weapon systems using hierarchical state machines, empowering designers to quickly author AI weapons.
- Prototyped AI using Unreal Engine Behavior Trees & Blueprint scripting, supporting early exploration of potential game mechanics
- Mentored associate and mid-level designers with structured onboarding, improving retention and ramp-up speed.

High Moon Studios, Carlsbad, CA   **January 2017 - November 2021**
Sr. Technical Designer
Projects: Call of Duty: Warzone, Call of Duty: Black Ops: Cold War, Call of Duty: Black Ops 4, Destiny 2: Forsaken
Led scripting efforts across multiple Call of Duty releases and game modes including its online battle royale, Call of Duty: Warzone. Shepherded new Destiny 2 combatant race from initial concept to final polish.
- Created Call of Duty: Warzone – Power Grab game mode (2021), acclaimed by community and reviewers, using a small team of technical designers and pre-existing assets.
- Designed, balanced, and implemented Destiny 2 enemy faction, The Scorn, central to expansion content.
- Delivered remastered Call of Duty: Zombies maps on accelerated timelines, driving seasonal engagement and revenue.
- Authored onboarding standards and best practices, improving design documentation and scripting efficiency.
- Interviewed and evaluated design candidates, strengthening studio hiring pipeline.

Backflip Studios, Boulder, CO   **December 2012 - July 2016**
Game Designer
Projects: Wits & Wagers: Trivia Party, Ninjump Rooftops, Ninjump Smash, Twister Tap, Transformers: Earth Wars, My Little Pony: Puzzle Party
Led design on multiple titles developed internally while prototyping over 30 game casual game concepts.
Coordinated with external studios to ensure quality releases from studio's publishing arm.
- Directed design on Ninjump Rooftops (#1 iPhone game in 45 countries), ensuring a high-quality product that successfully shipped on time.
- Prototyped 30+ casual game concepts, supporting new product pipelines.
- Championed data-driven design with analytics automation, reducing the time between data acquisition and game update release.
- Coordinated with Hasbro and external studios to deliver licensed IP games to global markets, driving additional revenue.

ByteSize Games, Novi, MI   **August 2010 - December 2012**
Creative Lead / CEO
Projects: FlipShip, Little Labyrinths
Founded and led small, indie studio to ship two mobile titles acclaimed by both critics and users.
- Shipped two mobile titles, *FlipShip* and *Little Labyrinths*, despite very limited resources.
- Titles featured by Apple; earned >80% review scores and 4.5/5 user ratings.

Insomniac Games, Burbank, CA   **January 2009 – June 2010**
Scripter
Projects: Ratchet and Clank Future: A Crack in Time, Fuse
Scripted levels including combat encounters, level layouts, and event triggers.
- Designed encounters, layouts, and collaborated with other departments to integrate core gameplay mechanics.
- Handled all scripting and other technical design needs during preproduction of Fuse.

EDUCATION

Master of Interactive Technology (MIT), Game Development (Level Design), SMU Guildhall

Master of Science in Engineering (MSE), Mechanical Engineering, Co-Valedictorian, Summa Cum Laude, Case Western Reserve University

Bachelor of Science in Engineering (BSE), Mechanical Engineering, Co-Valedictorian, Summa Cum Laude, Case Western Reserve University