

Benjamin H. A. Karnow Technical / World Designer
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Multi-talented gaming industry professional, highly skilled in design, scripting, and quality assurance. Fast and voracious learner who's always on the lookout for a new challenge, whether it's improving workflows, designing gameplay systems and worlds, or just getting people the information they need to make great games.

Professional Experience:

QA Tester, Toys For Bob (May 2018 - November 2018)

Spyro Reignited Trilogy:

- Attached to dedicated Xbox One / Xbox One X testing group
- Codified existing QA department techniques and procedures, allowing the multiple other studios attached to the project to come up to speed faster and more effectively.
- Wrote multiple studio-level tutorials and documentation for console development and testing, and introduced several new tools to improve QA workflow.
- Independently designed and implemented automated power-on and build deployment script for Xbox One, saving users multiple hours per week, and allowing unattended 1-click deployment to any console in the studio.

Junior World Designer, Hangar 13 (2015-2017)

Mafia 3 and Downloadable Content for Mafia 3 - "Faster, Baby," "Stones Unturned," "Sign of the Times"

Responsibilities for Mafia 3:

- Competitive analysis and feature solicitation for an overhaul of a proprietary engine's editor – Helped decide the core feature set and its implementation details, based on existing AAA engines
- Stakeholder for all matters pertaining to vehicle navigation data across the entire game world
- Prototyped and implemented enemy encounter prefabs, which were distributed across the game world
- Collaborated on economic reward structure design and reward placement across the entire game world
- Iterated on overall layout and geometry for approximately 20% of the game world
- Iterated on all ambient pedestrian spawn data + World Interactions for approximately 20% of the game world
- Created all water vehicle navigation data and populations across entire game world
- Placed all Collectible objects in the entire game world – Vargas Posters, Wiretapping fuses, Hotrod Magazines, Playboy Magazines, Album covers
- Final owner, at shipping time, of all collectibles in Mafia 3

Responsibilities for DLC1 – "Faster, Baby" - Vehicle Navigation and Racing

- Created all Vehicle and Pedestrian navigation data for the DLC area
- Prototyped and drove development of the 'stunt jump' system, and used it to create a persistent achievement- based quest
- Created a freeform checkpoint racing system with multiple tracks, focused on stylish jumping and drifting
- Collaborated on a system to allow players to disable pursuers on the fly using in-world objects, and placed all instances of the system in the DLC area

Responsibilities for DLC2 – "Stones Unturned" - Bounty Hunting Missions

- Created first playable mission to ease on-boarding of other designers
- Iterated on first playable to ship a unique multi-location, semi-randomly generated mission with large crowds
- Collaborated on testing and implementation of new features – Nonlethal takedowns, in-game cutscenes, and storing bodies in vehicles.
- Collaborated on vehicle navigation markup and troubleshooting for the DLC's main location

DLC3 – "Sign of the Times" - Upgradeable player home base

- Responsible for Vehicle navigation data alterations / additions for DLC content
- Collaborated on upgradeable, multi-part player base, and created the capstone 'reward' mission – A unique experience focused on social interaction and a sense of place

Additional Responsibilities:

- Extensive Confluence documentation work and copyediting
- Tool evaluation for future projects, focused on creating cities that support rapid iteration and procedural content creation

Senior Internal Quality Assurance and Submissions, 2K Games (2013-2015)

Mafia 3, Evolve, My2K (internal telemetry and entitlement backend)

Evolve and My2K integration:

- Responsible for testing Xbox Store integration into Evolve, as well as communication between the Xbox Store integration into the My2K entitlement backend
- Worked with 2K Core Tech engineers to prove the feasibility of My2K as a hybrid content/telemetry platform, for eventual adoption into all 2K products.

Mafia 3:

- Conducted full daily test cycles for tools and game content, supporting daily merges from 4 different source branches
- Major stakeholder in the building of Hangar 13's QA department – hire/no hire decisions, on-boarding of new hires, creation and codification of procedures, and promotion of developer/QA relationships
- Dedicated tools tester for 6 months, single point of contact for delivering tool iterations

Acting Junior Level Designer, 2K Marin (2013)

Downloadable Content Project for The Bureau: XCOM Declassified

- Collaborated with level architect and artists to create a multi-wave, combat focused map with an emphasis on simultaneous threat management.
- Scripted encounters and waves within map for Vertical Slice Milestone – Cover, enemy spawns, combat logic, player hooks, and pre-combat mise-en-scene.
- Prototyped and implemented global AI spawning objects and logic for the project.

Senior Internal Quality Assurance and Submissions, 2K Marin (2010-2013)

The Bureau: XCOM Declassified and Downloadable Content – Hangar 6 R&D

- Responsible for game editor portion of twice/thrice-daily code releases.
- Created department-wide test plans and knowledge bases for all aspects of game and tool testing
- Attached to Console Performance Group for 18 months:
- Platform-specific targeted performance analysis (GPAD, Tuner, PIX)
- Content-level performance analysis (shader costs, rendering costs per asset)
- Game-thread performance cost analysis for AI and systems
- Worked hand in glove with both technical programmers and content creators to track down and solve performance bugs
- Attached to PhysX / DirectX 11 implementation team for PC-specific beautification, resolution enhancement, and performance enhancement
- Responsible for deployment and publishing of game builds to Valve's Steam Digital Distribution platform
- Provided targeted testing and user script creation for E3 2010 and 2013 demos, as well as all pre-release playable builds
- Tested and verified all major code integrations for Geomerics Enlighten lighting middleware, as well as multiple Core Unreal Tech upgrades
- Participated in Agile development as dedicated QA representative
- Supported on-site and off-site user tests with builds and troubleshooting
- Supported scheduled build deliveries to external QA 2-3 times a week for all SKUs (EU / NA all languages, PC, PS3 and 360)
- Internal Support functions such as orienting new hires and setting up build and content creation infrastructure
- Created tutorials for local build processes, console deployment methods, source control setup, and troubleshooting for common issues

Education: *Hampshire College, Bachelor of Arts, graduated May 2010*

- Division II Concentration (Major): The Psychology of Narrative and Character
- Division III Project: Thesis on Narrative Game Design, accompanied by novella, film script adaptation and Unreal Tournament 3 modification (voice-acted)

Technical Skills:

- Unreal Engine 2 / 3 / 4
- Basic knowledge of CryEngine 3, idTech 3 and 4
- Basic knowledge of 3DS Max and Maya
- Xbox One and Playstation 4 GPU and CPU performance analysis tools
- Perforce and Git source control
- Seapine TestTrack Pro
- Atlassian Confluence / JIRA
- Proficient in Python, Microsoft Powershell, HTML / XML / CSS (W3C-compliant), and AutoHotKey Scripting Language
- Active interest in C++ and Lua, as well as various internal game scripting languages (Doom ACS, DECORATE, and ZScript)