

Benjamin H. A. Karnow Technical / World Designer
102 Eye St San Rafael, CA, 94901
415-999-7255 bhakarnow@gmail.com

I'm a multi-talented gaming industry professional, highly skilled in technical design, content design, and scripting, with an extensive background in quality assurance. I'm a fast and voracious learner who's always on the lookout for a new challenge, whether it's designing gameplay systems, creating worlds, or improving workflows and getting people what they need to make great games.

Professional Experience:

Content Designer, Hack Computer (2019 – Present)

Hack Content / Platform:

- Sole content designer on a team dedicated to delivering monthly releases of narrative-driven content, focused on teaching core programming concepts to children
- Designed and scripted May content release (~4+ hours of gameplay), as well as bug-fixes for prior releases
- Collaborated with Design Director and Writer to map out, redesign, and overhaul all previously released content, focusing on content extensibility, more effectively achieving learning objectives, and improving narrative execution
- Redesigned one of the cornerstone teaching applications to more effectively teach learning objectives, as well as provide flexibility for future objectives to be taught using the same content
- Designed new systems for delivering narrative depth on demand, as well as providing more nuanced and flexible interactions between narrative content and teaching applications
- Designed and executed a prototyping system to aid in developing future content, 'in-engine' asset previews, and provide living documentation for design best practices

QA Tester, Toys For Bob (2018)

Spyro Reignited Trilogy:

- Attached to dedicated Xbox One / Xbox One X testing team, focused on platform-specific performance and compatibility issues
- Conducted in-depth investigations into undocumented idiosyncratic behaviors of the original game, to allow them to be accurately reproduced in the remake
- Independently designed and implemented power-on and build deployment script for Xbox One, allowing automated 1-click build deployment across the studio network.
- Introduced several new tools to improve QA workflow, and wrote multiple studio-level tutorials and documentation for console development and testing

Junior World Designer, Hangar 13 (2015 – 2017)

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

Mafia 3 (Base Game):

- 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 for approximately 20% of the game world
- Iterated on overall layout, geometry, ambient pedestrian spawn data, and world interaction animations 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

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

DLC2 – "Stones Unturned" - Bounty Hunting Missions

- Created a unique multi-location, semi-randomly generated mission with large crowds

- Collaborated on implementation of multiple 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 and capstone mission

- 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:

- Dedicated tools tester, single point of contact for delivering tool iterations as well as full daily test cycles, 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

Acting Junior Level Designer, 2K Marin (2013)

Downloadable Content Project for The Bureau: XCOM Declassified

- Created 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

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

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

- Responsible for tools portion of twice/thrice-daily code releases.
- Attached to Console Performance Group for 18 months, conducting platform-specific analysis (GPAD, Tuner, PIX), content analysis (shader costs, rendering costs per asset), and AI and systems cost analysis, working 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 all E3 demos and pre-release playable builds
- Tested and verified all major code integrations for Geomerics Enlighten lighting middleware, as well as multiple Core Unreal Tech upgrades
- Supported scheduled build deliveries to external QA 2-3 times a week for all SKUs (EU / NA all languages, PC, PS3 and 360)
- Created department-wide test plans, knowledge bases and tutorials for local build processes, console deployment methods, source control setup, and troubleshooting

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, CryEngine 3, idTech 3 and 4
- Basic knowledge of 3DS Max and Maya
- Xbox One and Playstation 4 GPU and CPU performance analysis tools
- Proficient in Python, Powershell, HTML / XML / CSS, and AutoHotKey Scripting Language, well as various internal game scripting languages
- Perforce and Git source control
- Experience with tracking software such as TestTrack Pro, JIRA, and many others.
- Active interest in Lua, Javascript, C++, and Rust.