

NATHANIAL BENTON

SENIOR SOFTWARE ENGINEER | FIRMWARE & FPGA

Senior software engineer at Osso VR, building production VR simulations and release tooling. Independently developed Chromatic firmware and desktop tools and now builds STM32 and FPGA firmware for M64.

PROFESSIONAL EXPERIENCE

SENIOR SOFTWARE ENGINEER

JUL 2026 - PRESENT

OSSO VR

REMOTE

- Architects and develops shared, production-critical VR features, including reusable interaction and scene-state systems.
- Provides technical direction across Engineering and MedTech through architecture reviews, PR reviews, and implementation guidance.
- Owns customer-critical interaction systems; reworked a catheter system in roughly three weeks, replacing several months of prior work.

SOFTWARE ENGINEER

JUL 2024 - JUL 2026

- Led development of the IV Insertion module and built reusable interaction-library features and Unity Editor tools for MedTech authors.
- Owned GitHub Actions and PowerShell build tooling, Unity tests, artifacts, submodules, and build-failure diagnosis.
- Took technical ownership of unfinished simulations after staffing changes, reworking systems and driving them through delivery.

UNITY DEVELOPER

MAY 2022 - JUL 2024

- Built custom Unity toolsets, interaction library features, and fixes for the MedTech team.
- Provided Unity support, consultation, and training so MedTech developers could resolve issues.

SELECTED ENGINEERING PROJECTS

M64 CUSTOM FIRMWARE

2026 - PRESENT

INDEPENDENT PROJECT

MODRETRO M64

- Built STM32H7 MCU firmware and SystemVerilog FPGA logic, including N64 cartridge reads and SD backup.
- Built RetroAchievements integration and an in-game overlay using MCU networking and FPGA memory sampling.
- Built system switching and HDMI video controls with routed FPGA timing closure.

CHROMAGIC

2026 - PRESENT

chromagic.org

MODRETRO CHROMATIC

- Built Chromatic firmware for on-device cartridge and save backups and SD card playback.
- Built ChroMagician for USB backups, save restoration, and firmware updates; now rewriting the firmware as ChroMagic 2.

EARLIER EXPERIENCE

INDEPENDENT GAME DEVELOPER

2007 - PRESENT

FATED PRODUCTIONS / CURSED TOAST GAMES - Unity gameplay systems, UI, custom tools, and scripted events.

SOFTWARE DEVELOPER

2021 - 2022

NATIONAL TABLE GAMES - Built a VR sports attendance app and supporting web servers.

REMOTE IT & BUSINESS DEVELOPMENT

2012 - 2016

DEGICA - Launched RPG Maker on Steam (\$10M+); managed forums for 80K+ users and wrote PHP tools.



(269) 716 - 1169

contact@natebenton.dev

in/natebentondev

Palm Coast, FL

CORE AREAS

- VR Interaction Architecture
- Unity Editor & Framework Tools
- Embedded MCU Firmware
- FPGA RTL & Video Pipelines
- Hardware/Software Integration
- Build & Release Systems
- Automated Testing
- Technical Direction

TECH SKILLS

- Languages:** C#, C, SystemVerilog, Python, C++, PowerShell
- Platforms:** Unity, STM32H7, Xilinx FPGA
- Build & test:** GitHub Actions, Unity tests, Vivado, Git
- Interfaces:** USB, SPI, UART, JTAG, SD
- Other:** Unreal, SQL, PHP, AWS

OTHER WORK

- Hypermnnesia, VR Horror Game
- EXIT, First Person Puzzle Game
- RPG Database, Custom Unity Toolset