

# Ben Hoffman

<https://benhoffman.tech>

---

## Skills

**Languages:** C/C++, C#, JavaScript, Haxe

**Engines/Libraries:** Unreal Engine, DirectX 11, Vulkan, NodeJS, Unity, ImGui, PlayStation 4 SDK

**Tools:** Visual Studio, Git, Perforce, Jenkins, Elasticsearch, Docker, CMake, Jira

## Work Experience

- **Engine Programmer** at Epic Games (January 2020 - Current)
  - Various improvements and bug fixes for the Unreal Engine gameplay framework with a main focus on Blueprints and their creation process from editor to runtime
- **Gameplay Programmer Intern** at Epic Games (May 2019 - August 2019)
  - Work alongside a team of senior engineers to improve the Unreal Engine gameplay framework
  - Make various optimizations to *Fortnite*, specifically towards improving startup time
- **Founder and Lead Developer** of Bull Horn Games LLC (August 2017 - Current)
  - Develop and design *Aurum Kings* in Unity (C#) available at <https://bullhorngames.com/>
  - Steamworks Services integration, gameplay programming, Twitch Integration, and more
  - Remote contract work in Unreal Engine (C++ and Blueprints) and Unity
- **Junior Developer Co-Op** for Workinman Interactive LLC (May 2017 - August 2017)
  - Collaborated with teams of artists and designers to iterate on multiple projects quickly
  - Developed *SpongeBob's Next Big Adventure*, specifically on questing, inventory, and leveling content
- **Interactive Data Visualization Co-Op** for RIT Dept. of Computing Security (January 2017 - May 2017)
  - Utilized Unity to represent devices and netflow traffic captured by tools such as Bro, Snort, and Packetbeat
  - Configured Elasticsearch to integrate with Unity via HTTP GET and POST requests
  - Available at <http://ergowitness.info>
- **Teaching Assistant** for RIT (August 2018 - December 2019)
  - Aid students in an intro C++ course with topics such as memory management, the STL, and threading
  - Assist students in a foundations of game programming course in C# with core OOP concepts
  - Grade assignments, guide students through issues, and host tutoring/review sessions

## Personal Projects

- **Fling Engine** (available at <https://fling-engine.site>) (Engine Programmer, August 2020 - Current)
  - Cross platform Vulkan game engine with a focus on data oriented design and how it relates to graphics
  - Physically Based, Deferred lighting pipeline with a basic material system
  - Gameplay Framework that allows for simple additions of "systems" with managed lifetimes
- **Multi-Threaded Voxel Engine** (Engine Programmer, August 2018 - Dec. 2018)
  - An engine with a focus on data parallelization while bringing a new look to voxel worlds
  - Develop the job system, configure continuous integration with Jenkins, and develop tools
  - Ported to run on the PlayStation 4 SDK

## Education

Rochester Institute of Technology

Bachelor of Science in Game Design and Development

December 2019

3.54 GPA

## Organizations

- **President** of RIT Game Development Club (2017 - 2019)
  - Present weekly on game development topics, create demos in Unity, and organize game jams
- **Founder** of IGDA Academic Chapter at RIT (2017 - 2019)
  - Organize meetings, create a community where students can network with other IGDA members