Ben Hoffman

Work Experience

- **Senior Engine Programmer** at Epic Games *(December 2022 - Current)*
  - Write, design, and maintain quality cross platform C++ code for multiple live service products within the Epic ecosystem including LEGO® Fortnite, Fortnite Festival, Fortnite Battle Royale, and the Unreal Engine. My work is targeted mostly towards engine and gameplay systems with the goal of making it easier for designers, artists, and engineers to bring their ideas to life.
  - The primary stakeholder of input across Unreal Engine, including the [Enhanced Input plugin](#). Enhanced Input is a modular solution to complex input handling and runtime control remapping that is easy to use by programmers and designers.
  - Frequently and carefully refactor large and complex engine systems in order to add new features, such as changing the platform input interface in Unreal Engine to allow for instrument devices. This was integral to the success of "plastic guitars" in *Fortnite Festival*.
  - Write tests, documentation, and create examples for all engine systems that I create and maintain.
  - Work on the "building" team for LEGO® Fortnite to help add essential features such as a build budget system
  - Mentor junior engineers and interns to help them grow and develop their early careers
- **Engine Programmer** at Epic Games *(January 2020 - December 2022)*
  - Ship the Lyra Sample Game, a starting point for any AAA game using Unreal Engine. My work on this game includes all input related code such as player remappable keys, multiplatform input support (PC, iOS, Android, PS4, PS5, XSX, XB1), gamepad dead zone handling, and aim assist.
  - Support *Fortnite* as development moves at breakneck pace in a live games-as-a-service environment, helping to fix engine bugs and resolve complex emergent issues
  - Write public facing documentation and provide support to engine licensees on the Unreal Developer Network and Development Community sites
- **Gameplay Programmer Intern** at Epic Games *(May 2019 - August 2019)*
  - Work alongside a team of senior engineers to improve the Unreal Engine gameplay framework with critical bug fixes and quality of life improvements for Blueprints
  - Make optimizations to the *Fortnite* editor to improve load times and designer iteration speed
- **Founder and Lead Developer** of Bull Horn Games LLC *(August 2017 - 2020)*
  - Solo Programmer on *Aurum Kings* in Unity (C#) available [on Steam](#)
  - Steamworks Services integration, gameplay programming, Twitch Integration, and more
  - Contract work doing gameplay programming in Unreal Engine (C++ and Blueprints) and Unity
- **Junior Developer Co-Op** for Workinman Interactive LLC *(May 2017 - August 2017)*
  - Created core gameplay systems such as questing, inventory, and progression for *SpongeBob's Next Big Adventure* under the guidance of senior developers in Haxe
  - Collaborate with artists and designers to iterate on multiple internal projects quickly

Personal Projects

- **Fling Engine** (available at https://fling-engine.site) *(Engine Programmer, August 2020 - Current)*
  - Vulkan engine with a physically based deferred lighting pipeline that runs on Windows and Linux
  - This is a personal project that I started in college to use as a playground for engine development with the goal being to learn more about how to implement complex engine systems that I otherwise would not be exposed to

Education

Rochester Institute of Technology
Bachelor of Science in Game Design and Development *Graduated December 2019*
3.54 GPA