JULIAN **HEINKEN**

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EDUCATION

Hochschule für Angewandte Wissenschaften Hamburg (HAW) | *BASC. Media Systems*   **2016-2021**
- Thesis: Texel-Space Rendering with the Oculus Quest

Wirtschaftsgymnasium Göhlbachtal   **Hamburg**
Abitur   **2014**

EXPERIENCE

Symmetry Break Studio GmbH   **Sep 2021 – Present**
Co-Founder and Technical Director   **Hamburg, Germany**
- Co-Founded a GmbH to create video games and tools.
- Lead Developer on a 2D narrative game (Misgiven) in Unity.
- Implemented entire game code and VFX.
- Developed VFX asset to be sold on the Unity Asset Store.

Super Crowd GmbH   **Hamburg, Germany**
Graphics Programmer   **Juli 2020 - March 2022**
- Helped to create web versions of various conventions and fairs in Unity due to the pandemic.
- Build tools and shaders with art-team to enable trivial re-purposing of assets.
- Build tools for designers to speed up workflow and game performance.
- Implemented framework used shaders.
- Various gameplay programming.

VR Nerds GmbH   **Hamburg, Germany**
Unity Developer (Working Student)   **July 2018 - Sept. 2018**
- Worked on B2B Projects, as well as on the VR Game Tower Tag.
- Created specialized shaders for VR and transparency.

Realities.io Inc.   **Berlin, Germany**
Graphics Programmer (Intern)   **Feb 2018**
- Implementation of an AI-based image-upscaler in Unreal Engine 4.
- Photogrammetry basics.

Lucid Trips Team   **Hamburg, Germany**
Unity Developer   **June 2015 - Oct 2017**
- Helped develop Lucid Trips, an open-world VR game with experimental locomotion controls.
- Created designer requested tech-art, like a global footprint system or interactive grass.
- Developed tools to integrate large meshes into Unity.
- Various Gameplay-Programming and VR-specific optimizations.

Freelancing work   **Hamburg/Remote, Germany**
- Supported porting a Unity game to PlayStation 4 and Switch.
- Implemented multiple VR experiences for fairs and exhibitions
- VFX work for unannounced VR-Film project.

SKILLS

Programming languages C# (advanced), C (intermediate), Rust (intermediate), C++ (intermediate), Zig (basics), Python (Basics), JavaScript (basics), SQL (basics)

Tools Visual Studio, JetBrains Rider, Photoshop, EmberGen, RenderDoc, NSight, Git, SVN

Language German (motherlanguage), English (fluent), Spanish (basics), Japanse (basics), Danish (very basic)

Interests Bouldering, Music (Drums, Synthesizers, DAWs).

PROJECTS

Misgiven | *Steam Page*   **TBH**
- A narrative 2D-Game with a unique dialogue system, made in Unity.
- Entire game-logic, VFX and level lighting.
- Build a custom Signed-Distance-Field framework for UI animations.

Unnamed C++ Game Engine | *Demo Video*   **2022+**
- Hobby 2D-Engine on top of *Raylib* for PC and Web.
- Editor application with UI (via Dear ImGui), undo/redo, load/save and basic transform support.
- Support for Spine, Yarn Spinner (basics) and path finding.

Screen Space God Rays (Unity Asset) | *WebGL Demo*   **2024 (pending)**
- Godray Shader for Unity with support for 3D, 2D and VR.
- In-Depth optimizations in HLSL for maximum GPU usage.

Super Crowd Framework (discontinued) | *Project Page*   **2020-2022**
- Framework in Unity for WebGL-based online events during the pandemic.
- Used for: Indie Arena Booth 2021 & 2022, Dream Hack Beyond 2022, Hamburg Games Conference 2022 and many others.
- Art-Pipeline tool that makes sprites reusable by making colors replaceable.
- Developed shader for sorting-free 2D isometric rendering in Unity.
- Connected codebase to external analytics system.
- Developed an auto-balancing system for XP point distribution

Battle Planet - Judgment Day | *Steam Page*   **2019**
- Freelance work for Threaks as a Unity-Developer.
- Implemented achievement and leader boards system for PlayStation 4 and Switch.
- Additional Tech-Art support.

Lufthansa Air Swing VR Experience| *Project Website*   **2019**
- Freelance work for Demodern as a Unity-Developer.
- Game-Logic implementation

Lucid Trips | *Steam Page*   **2015-2017**
- A open world VR game with experimental locomotion.
- Implemented persistent footsteps, interactive grass and various other VFXs.

CERTIFICATION & AWARDS

2020 Deutscher Computerspiel Preis - Sonderpreis der Jury

2023 Deutscher Entwicklerpreis 2023 - Best Newcomer (Nominated)