CV - TOBIAS BRANDNER

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EDUCATION

MSc in Computer Science - Specialization in Artificial Intelligence Grade **1.5**
Julius-Maximilian-University Würzburg *April 2021 - September 2024*
Thesis topic: Real-time rendering super resolution with Unreal Engine 5
Notable courses: Computational Geometry, Machine Learning for NLP, Programming with neural nets

BSc in Games Engineering Grade **1.8**
Julius-Maximilian-University Würzburg *October 2017 - September 2021*

EXPERIENCE

C# Developer (Research project), Julius-Maximilian-University *November 2021 - August 2023*
Technologies: Unity, C#

- Wrote C# modules to translate behavior of scenes from Mozilla Spoke editor to Unity.

C++ Developer (Teaching Role), Julius-Maximilian-University *August 2021 - August 2023*
Technologies: C++, OpenGL, CMake

- Taught a course about game engine development, designed C++ examples and documented concepts.

Software Developer (Internship), Gentle Troll Entertainment GmbH *March 2021 - June 2021*
Technologies: Unity, C#

- Programmed game play logic in Unity with C# for a serious game.

PROJECTS

Real-Time Rendering Super Resolution with Unreal Engine 5 Github
Technologies: Python, Pytorch, Unreal Engine 5

- Developed a neural method to increase resolution and quality of rendered content in real-time.

Abyssal Enigma - Dive In Edition (VR) Itchio
Technologies: Unreal Engine 5, VR, Blender

- Designed and developed a first person character for a deep sea exploration game and ported it to VR.

Boss'n Run - Exploring Game Flow Itchio
Technologies: Python, Unreal Engine 5, C++, Blender

- Implemented and analyzed different movement mechanics for 3D jump'n runs.

PUBLICATIONS

Analysis and Generation of Flow in 3D Jump'n'Run Games. PDF
2024 IEEE Conference on Games (CoG). Tobias Brandner, Marc Mußmann, and Sebastian von Mammen.

SKILLS

Languages:	Python, C++, C#, Rust
Frameworks/Libraries:	Pytorch, Matplotlib, OpenGL
Game Engines:	Unreal, Unity, Godot
Tools:	Git, CMake, Blender