

# CV - TOBIAS BRANDNER

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## EDUCATION

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<b>Msc in Computer Science - Specialization in Artificial Intelligence</b>	1.5
Julius-Maximilian-University Würzburg	<i>April 2021 - September 2024</i>
<b>Bsc in Games Engineering</b>	1.8
Julius-Maximilian-University Würzburg	<i>October 2017 - September 2021</i>

## EXPERIENCE

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<b>Research Assistant</b> , Julius-Maximilian-University Würzburg	<i>November 2021 - August 2023</i>
<b>Technologies:</b> Unity, C#	
<ul style="list-style-type: none"><li>Worked on an open-source project called Via-VR, an online framework for creating VR applications to support medical treatment.</li></ul>	
<b>Teaching Assistant</b> , Julius-Maximilian-University Würzburg	<i>August 2021 - August 2023</i>
<b>Technologies:</b> C++, OpenGL, CMake	
<ul style="list-style-type: none"><li>Tutored a course on game engine development, teaching the basics of rendering, input handling and game loop.</li></ul>	
<b>Internship Software Developer</b> , Gentle Troll Entertainment GmbH	<i>March 2021 - June 2021</i>
<b>Technologies:</b> Unity, C#	
<ul style="list-style-type: none"><li>Developed a serious game for teaching children about management in sports.</li></ul>	

## PROJECTS

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<b>Real-Time Rendering Super Resolution with Unreal Engine 5</b>	<a href="#">Github</a>
<b>Technologies:</b> Python, Pytorch, Unreal Engine 5	
<ul style="list-style-type: none"><li>Developed a neural method to upsample from 1080p to 4k in under 16.6 ms while increasing image quality. Created a dataset containing 550GB of rendered content.</li></ul>	
<b>Boss'n Run - Exploring Game Flow</b>	<a href="#">Itchio</a>
<b>Technologies:</b> Unreal Engine 5, C++, Python	
<ul style="list-style-type: none"><li>Developed a framework to investigate movement in 3D jump'n'run games. Visualized movement parameter behavior in 3D plots</li></ul>	

## PUBLICATIONS

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<b>Analysis and Generation of Flow in 3D Jump'n'Run Games.</b>	<a href="#">PDF</a>
2024 IEEE Conference on Games (CoG).	
Tobias Brandner, Marc Mußmann, and Sebastian von Mammen.	

## SKILLS

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