Manuel Zechmann

Software Engineer
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EDUCATION

UNIVERSITY OF VIENNA — October 2019 - January 2023
Computer Science Bachelor — Vienna

UNIVERSITY OF VIENNA — October 2023 - July 2025
Master Media Computer Science — Vienna

UNIVERSITY OF VIENNA — October 2024 - Present
Astronomy Bachelor — Vienna

EXPERIENCE

PARTIUM | Software Engineer Intern — Vienna | July 2022 – September 2022

In this position I was working with Python, trying to improve the search backend and testing if ElasticSearch was an improvement to the pipeline. Furthermore I was able to learn a lot about Software Engineering Practices in a company.

PARTIUM | Junior Software Engineer — Vienna | October 2022 – March 2024

After successfully finishing my internship at Partium, I was offered this position. Here I was continuing working on important parts of the product as part of the R&D Team. When working on the tasks, well-written and maintainable code was of the highest priority. Additionally, I was tasked with improving the CI/CD pipeline, adding new automated features and more.

VIEWAPP | Multimedia-Software Engineer — Vienna | July 2024 – September 2024

In this position, I was especially working on improving and adding tools to assist the artists in creating the map. Additionally, I was working on fixing bugs, that disrupt the quality of the game. During my time, I improved my knowledge with Unreal Engine and C++ and was able to work on a very large codebase.

SKILLS

Programming Languages	C++, Python, GDScript, GLSL
Libraries/Frameworks	Unreal Engine, Godot, Vulkan, Tensorflow
Tools / Platforms	Git, AWS, Docker, Postman, Elasticsearch, Kubernetes, Blender

PROJECTS / OPEN-SOURCE

TALLTRUNKGALAXY64 | Link — C++, Assembly, Shell

A small hack that tries to bring Tall Trunk Galaxy from Super Mario Galaxy 2 to Super Mario 64

BACHELOR THESIS - IMAGE CLASSIFICATION | Link — Python, Tensorflow, Unity

This project was split into two parts. Part one was generating images of a handmodel in unity. Part two was about training a model to correctly classify real world images of my hands in different environments. I worked on two different ideas here. First I was working in binary classification (is there a hand in the image or not), then I was working on multiclass classification (which handpose is shown in the image)

MASTER THESIS - PROCEDURAL PLANET GENERATION — Godot, GLSL, C++

This project is currently in development. The main goal is to create a game in Godot, which is capable of having procedurally generated planets on button press. One of the main focus points is the terrain generation algorithms, that can be used.

GAME ENGINE

C++, Vulkan, GLSL

This is currently in development. With this project, my main intention is to understand and improve the concepts of game engines and different optimizations. A basic game engine was already developed during a course at the university, but due to how interesting it was, I wanted to go a step further.

SECOND SUPER MARIO 64 ROMHACK

C++, Assembly, Shell

Currently in development, I want to create another rom hack. This time i want to expand on the concepts I've learned in the first one and produce an immersive experience.

CERTIFICATIONS

- C2 Proficiency Score 218 - Cambridge English
- CS50's Introduction to Game Development - edX
- CS50's Introduction to Computer Science - edX
- Amazon Web Services Cloud Practitioner - Amazon Web Services (AWS)