

# Pirmin Pfeifer

STUDENT, GAMES ENGINEERING BSc

Julius-Maximilians University - Germany

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## Education

### Computer Science MSc

JULIUS-MAXIMILIANS UNIVERSITY

Würzburg, Germany

Oct 2023 - Current

### Games Engineering BSc

JULIUS-MAXIMILIANS UNIVERSITY

Würzburg, Germany

Sep 2019 - Sep 2023

- Received highest grade for all applied Games Engineering projects
- Final Grade: 1.6

### Abitur

FRIEDRICH-LIST-GYMNASIUM

Gemünden, Germany

Sep 2011 - Jul. 2019

- Final Grade: 2.0

## University Projects

### Thesis: Visualization of Raytracing

C++ | DIRECTX12 | DXR | CMAKE | GIT

Würzburg, Germany

Sep. 2021 – Jul. 2022

- A prototype Tool for visualising large ray data sets
- Received Grade: 1.3
- Resources: [Github](#) | [Thesis](#)

### GameLab III: Switch Engine

NINTENDO SDK | C++ | BLENDER | GIT

Würzburg, Germany

Sep. 2021 – Jul. 2022

- Created library and a collection of complementary development tools for creating small games for the Nintendo Switch™ and a sample MineSweeper Implementation
- Received Grade: 1.0
- Resources: [Trailer](#)

### GameLab II: Balancing Hub

UNREAL ENGINE 4 | C++ | BLENDER | GIT

Würzburg, Germany

Oct. 2020 - Jul. 2021

- Developed a plugin for the Unreal Engine, that gathers all variables relevant to balancing in one centralised UI and enables the balancing of games at runtime
- Received Grade: 1.0
- Resources: [Trailer](#) | [Presentation Page](#) | [Itch.io Page](#) | [Backend Code \(GitHub\)](#)

### BrightnessBasedTextureLayering

UNREAL ENGINE 4 | GIT

Würzburg, Germany

Oct. 2020 - Feb. 2021

- Developed an artistic post-processing shader for the "Movie Making with Game Engines" Course
- Created in cooperation with four design students from the University of Applied Sciences Würzburg-Schweinfurt
- Received Grade: 1.0
- Resources: [Itch.io Page](#) | [FHWS Page](#)

### GameLab I: Empty Spaces

UNREAL ENGINE 4 | C++ | BLENDER | GIT

Würzburg, Germany

Mar. 2020 – Jul. 2020

- Developed a small bullethell metroidvania, with an dynamically loaded open world consisting of six regions
- Received Grade: 1.0
- Resources: [Trailer](#) | [Itch.io Page](#)

## Work Experience

### Software Engineering Intern

ADVANCED MICRO DEVICES, INC.

Munich, Germany

Apr. 2023 - PRESENT

- Work from home office
- 12-16 hours per week during the semester
- 32-40 hours per week during the semester pause

## Software Engineering

ADVANCED MICRO DEVICES, INC.

- 32 hours per week in home office
- Developed and maintained research software for raytracing in C++
- Developed and improved development tools in the software stack

Munich, Germany

Oct. 2022 - Mar. 2023

## Tutor for Game Lab I

JULIUS-MAXIMILIANS UNIVERSITY

- Explained basic and intermediate topics the students brought up
- Created introductory tutorials for Unreal Engine 4 & Unity
- Tested and reviewed the students games

Würzburg, Germany

Oct. 2020 - Sep. 2022

## Software Engineer

BUILDING INFORMATION INNOVATOR GMBH

- Developed professional digital tool for modeling, simulation and visualization of construction processes with Unity and a functional C# library
- Build graph data structures for the management of cargo flows
- Build development & debug tools

Würzburg, Germany

Mar. 2021 - Sep. 2021

## Skills

**Language Skills:** German: Native Speaker, English: B2+/C1, Latinum

**Languages (frequent use):** C++, Hlsl, Python

**Languages (basic knowledge):** C#, Java, JavaScript, Typescript, Bash, Shell

**Developer Tools:** Git/GitLab, CMake, Visual Studio, Unity, Unreal (Blueprints and C++), Jet-Brains IDEs, Blender

**Libraries and Frameworks:** DirectX12, DXR, d3d12WorkGraphs, Nintendo SDK, WebGL, Discord API

**Other Tool:**  $\text{\LaTeX}$ , ffmpeg, vcpkg, podman, wsl

## Honors & Awards

2022-2023 **Deutschlandstipendium**, Scholarship. Co-financed by Lotum media GmbH

Würzburg, Germany

## Social Commitment

### Founding-Member of eSports association "WueSports e. V."

WUESPORTS E.V.

- Follow up Organisation of "eSport Uni Würzburg"
- Co-organised founding

Würzburg, Germany

Jun. 2022 - PRESENT

### Member of the Games Engineering Student Initiative

JULIUS-MAXIMILIANS UNIVERSITY

- Organising LAN-Parties at the begin of each term
- Organising freshman events like gaming nights, club nights or craft evenings
- Managing the Game Engineering Discord Server

Würzburg, Germany

Oct. 2019 - PRESENT

### Member of the Student Council (Mathematics & Computer Sciences)

JULIUS-MAXIMILIANS UNIVERSITY

- Organising freshman events like campus tours, campus/city rallies, pub nights or (board-)game nights
- Organising digital Christmas parties and campus rally in WorkAdventure during the covid pandemic
- Student representative in appointment committees for
  - Professorship "Optimierung unter Ressourcenbeschränkung"
  - Professorship "Reinforcement Learning and Decision-Making"
  - Professorship "Mathematik des maschinellen Lernens"
  - Professorship "Theorie des maschinellen Lernens"

Würzburg, Germany

Sep. 2019 - PRESENT

### Speaker of the Student Council (Mathematics & Computer Sciences)

JULIUS-MAXIMILIANS UNIVERSITY

- Coordinating the Student Council (Mathematics & Computer Sciences)
- Student-Representative in multiple committees and councils on faculty and university level
- Member of academic self-government and other councils:
  - "Fakultätsrat der Fakultät für Mathematik und Informatik"
  - "Fachschaftenrat der Universität Würzburg"
  - "Studentischer Konvent der Universität Würzburg"
  - "Delegation für die LandesASTenKonferenz Bayern"
  - "Studienzuschusskommission für die Universitätsbibliothek"

Würzburg, Germany

Oct. 2021 - Sep. 2022

## **Founding and Managment of the eSport Club "eSport Uni Würzburg"**

ESPORT UNI WÜRZBURG @ JULIUS-MAXIMILIANS UNIVERSITY

- Organising training sessions in computer pools of the university
- Coordinating streaming and casting of liga matches
- Coordinating UniLiga registration and team building
- Managed the Community Discord Server

*Würzburg, Germany*

*Nov. 2019 - Jun. 2022*

## **Robotics AG Tutor**

FRIEDRICH-LIST-GYMNASIUM

- Helped with coding and assembly of LEGO® MINDSTORMS® robots
- Jury Member for the annual school robotics contest

*Gemünden, Germany*

*Sep. 2015 - Jul. 2018*