



Simon Zimmermann

Curriculum Vitae

PERSONAL DETAILS

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| <i>Birth</i> | June 5, 1993 |
| <i>Location</i> | Düsseldorf, Germany |
| <i>Mail</i> | mail@simonzimmermann.com |
| <i>Github</i> | github.com/SimonZimmer |

EDUCATION

M.Sc. Media Informatics

2018-2020

University of Applied Sciences Düsseldorf

Thesis title: 'Scalable Modelling of Room Acoustic Characteristics for AR-devices on the Basis of Visual Information Using Deep Learning' - honors degree.

M.Sc. Music Informatics

2018

University of Music Karlsruhe

Guest Semester

B.Eng. Media Engineering

2012-2017

University of Applied Sciences Düsseldorf

Thesis title: 'A Concept for Implementing Room Acoustic Material Properties in the Context of a 3D-Audio Engine'

WORK EXPERIENCE

C++ Backend Software Developer

2022-present

Dear Reality GmbH, Full-time

Backend research and development of digital signal processing algorithms and API design using C, C++, and Python

C++ Fullstack Software Developer

2020-present

Dear Reality GmbH, Full-time

Full-stack development of real-time desktop audio applications following test-driven development, modern C++, and agile project management principles

Researcher / QA Engineer (Working Student)

2017-2020

Dear Reality GmbH, Part-time

Research and development of digital signal processing prototypes, quality assurance, and test automation development

Room-Acoustics Engineer (Working Student)

2016-2017

ISRW-Klapdor, Part-time

Simulation and design of room-acoustic properties and in-situ acoustic measurements

PROJECTS

dearVR Exoverb

2022

Backend Developer

Developed the DAW-plugin "Exoverb," which uses synthesized reverb impulse responses and additional processing to generate realistic reverberation effects

Team Split Facilitation

2022

Backend Developer, DevOps Engineer

Facilitated the transition from a single-team solution to a frontend/backend split. Extended the technology stack with Conan, Microsoft Azure, Pure Data, and C

dearVR MIX/MONITOR

2021

Full Stack Developer

Developed the DAW-plugins "dearVR MIX" and "dearVR MONITOR," which utilize headphone calibration, room simulation, and binauralization to virtualize professional studio environments. These plugins also simulate multichannel audio playback

PUBLICATION

Co-Author

2021

Conference Paper, Immersive and 3D Audio: from Architecture to Automotive (I3DA): "Machine Learning-Based Room Classification for Selecting Binaural Room Impulse Responses in Augmented Reality Applications"

AWARDS

Composer, Producer

2020

Best contribution "!"content" in the category Acoustic Stories, "Sound Cinema Düsseldorf"

Composer, Producer

2020

Audience award for contribution "!"content", "Sound Cinema Düsseldorf"

SKILLS

Languages

German (mother tongue)
English (fluent)

Technologies

C++17
CMake
conan
googletest/googlemock
google-benchmark
C99
Python
Pure Data (Pd)
Linux
git
nvim/vim
docker
conan
Azure DevOps
Jenkins
POSIX
MATLAB
L^AT_EX
JUCE
pybind11
flask
wagtail

Other

Music Production
Modular Synthesizer
Esoteric Programming Languages (Orca, TidalCycles)