Simon Zimmermann
Curriculum Vitae

PERSONAL DETAILS

Birth	June 5, 1993
Location	Düsseldorf, Germany
Mail	`mail@simonzimmermann.com`
Github	`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 / C++ Backend Software Developer `2022-present`
Dear Reality GmbH, Full-time

> Backend development of digital signal processing algorithms, design of proprietary APIs 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
	boost
	googletest/googlemock
	google-benchmark
	C99
	Python
	Pure Data (Pd)
	Linux
	git
	nvim/vim
	docker
	conan
	Azure DevOps
	Github Actions
	Jenkins
	POSIX
	MATLAB
	LaTeX
	JUCE
	pybind11
	flask
	wagtail
Other	Music Production
	Modular Synthesizer
	Esoteric Programming Lanuages (Orca, TidalCylces)