Yannik Brehm

Birth: 29.08.1993

Software Developer
Düsseldorf, Germany

📞 +49 172 6741795
✉ y_brehm@proton.me

 GitHub Profile
 LinkedIn Profile

EDUCATION

•**M.Sc. Media Informatics** *Feb 2019 - Feb 2022*
University of Applied Science, Düsseldorf Grade: A+
Thesis: "Implementation and Evaluation of a Deep Learning Based Dereverberation
Algorithm for Speech Signals" - honors degree

•**B.Eng. Media Technology** *Sep 2012 - Nov 2017*
University of Applied Science, Düsseldorf Grade: B
Thesis: "Room Acoustics and Digital Room Correction Systems for Recording Studios"

WORK EXPERIENCE

•**Backend Software-Developer** *Dec 2021 - present*
Dear Reality GmbH (Sennheiser Group) Full-time
 – C++ and C backend development of real-time audio applications
 – Python development of offline audio applications and data serialisation tools
 – Audio systems tuning through critical listening and measurements
 – Processes follow the guidelines of test-driven development, modern C++ and Scrum

•**Audio DSP Researcher / QA Engineer** *Feb 2019 - Nov 2021*
Dear Reality GmbH (Sennheiser Group) Work Study
 – Research and development of audio DSP algorithms and test automation tools
 – Engineering for quality assurance

•**Research Assistant** *Mar 2019 - Dec 2019*
University of Applied Science, Düsseldorf Work Study
 – Acoustic and electrical measurements, electrical engineering, audio DSP research

•**Acoustic Engineer** *Oct 2016 - Feb 2019*
ISRW Klapdor GmbH Full-time (Oct 2017 - Oct 2018) / Work Study
 – Acoustic measurements, acoustic simulations, acoustic consultancy

PROJECTS

•**Dear Reality Exoverb** *2022*
Backend Developer
 – Contributed to the development of a synthetic reverb DAW-plugin
 – In particular: Development of a C++ backend for realtime audio processing

•**Dear Reality dearVR Mix / Monitor** *2021*
Audio-DSP Researcher, Audio System Tuning Engineer
 – Contributed to the development of a DAW-plugin for binaural monitoring and mixing
 – In particular: Development, measurement and tuning of headphone equalisation filters

•**Digital loudspeaker design and construction based on a Grimm LS1** *2021*
Fullstack (University project)
 – Complete design and build of a high-end digital loudspeaker system
 – Including: Acoustic measurements, acoustic simulations, electrical engineering,
    DSP filter design, PCB design, CNC milling, woodworking, painting, etc.

TECHNICAL SKILLS AND INTERESTS

Languages: English(fluent), German (native)
Programming Languages: C, C++17, Python
Developer Tools: Azure, CMake, Conan, Docker, Eagle, Git, LaTeX, Pure Data, Vim
Frameworks: FlatBuffers, GoogleBenchmark, GoogleTest, JUCE, NumPy/SciPy, pybind11, PyTorch/TensorFlow
Audio Software & Tools: Ableton Live, Reaper, REW, RePhase, Nuendo/Cubase, WinISP
Managment Frameworks: Kanban, Scrum
Areas of Interest: Acoustics, audio engineering, coding, critical listening, electrical engineering, music