

Berrak Nil Boya

Technical Sound Designer /
Multidisciplinary Audio Artist /
Software Developer

PROFESSIONAL SKILLS

TECHNICAL AUDIO & MUSIC DESIGN

Designing and implementing audio systems based on the game engine and/or audio middleware that is being used, whether it is Wwise, Fmod, Unreal Engine or Web Audio API

MUSIC COMPOSITION / SOUND DESIGN

With a formal education background in classical music, and years of experience with sound design, I am quickly able to prototype test cases for every level of fidelity during a development cycle, and even create final products with original sound design and custom music.

PROGRAMMING

Thanks to my professional background as a web developer and my curiosity, I am quickly able to go through a new codebase, and work on integration side by side with the programming team. I can script/code new solutions or where needed I can be the bridge between audio and programming teams to assess the feasibility of an audio implementation method.

DOCUMENTATION AND PRODUCTION

Due to my academic background and also working as a self-directed and self-motivated artist and a freelancer for years, I am very meticulous about documenting my processes, making sure cross-disciplinary collaboration and onboarding processes are accessible to all, and also writing/recording educational and informative material where necessary during a development cycle.

CONTACT

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PROFILE

I am a Berlin based audio artist, software developer, and a classically trained musician/musicologist, who loves to work at the intersection of arts and technology.

After a few decades-long career in music, academia, and web development, these days I prefer to build audio systems for video games, and create online learning materials and interactive artworks, by using code, original sound design and music.

EXPERIENCE

BIOMECHANOID REPAIR SHOP (2025)

Was hired to design and implement an audio system in Godot for this game's playable build. I created the original sound design, edited temp music tracks, and scripted the interactive audio system and mix using C#.

AUDIO DEBUG MONITOR FOR GODOT (2025)

Solo designer and developer on a real-time audio debugging tool for Godot 4 projects. As I worked on a new project based on Godot, I found myself missing UE5's audio debugging tools, so I coded one myself, to monitor all AudioStreamPlayer nodes in the game with a clean, customizable on-screen overlay.

PROTOTYPE FUND GRANTEE (2024 - 2025)

My audio accessibility and enhancement focused browser extension, BrowserEQ was awarded a grant from Prototype Fund (supported by the German government) to upgrade it to a second version that uses modernized web technologies.

It was chosen as one of the 25 projects to be supported among 328 applicants, and during the seven-month grant period, I worked on both upgrading the UI and implementing new features.

MIDI MIX CONTROL - UNREAL ENGINE 5 PLUGIN (2024)

Solo designer and developer on MIDI Mix Control, which is an Unreal Engine 5 plugin that leverages the Editor Utility Widget system. It allows a user to control their audio modulation mixes with their MIDI controllers while also providing a user-friendly interface that provides real-time feedback. Written with Blueprints and C++.

HUMAN VIOLINS XR (MARCH 2024 - JUNE 2024)

Worked as a Technical Audio Artist for the VR Franchise Human Violins, which was screened in Cannes XR 2024. I was responsible for all Unreal Engine 5 technical audio development. Designing audio systems, developing blueprints, creating audio event hooks to the sequencer and the gameplay instance, in addition to implementing all sound assets created by the lead sound designer, according to their needs and instructions. Also designing all Unreal Engine 5 mixing pipeline, including Binaural audio and Resonance Plug-in implementation.

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GAME AUDIO PROFICIENCY

UNREAL ENGINE 4/5

- MetaSounds
- Quartz
- MIDI File/Input/Control
- Blueprints
- Sound Cues
- OSC Applications

UNITY / GODOT

- Audio implementation in-engine audio or using middleware integration

WWISE

- 12 Years of experience, created one of the first Unity/Wwise integration tutorial series, worked as an Audio Systems Designer on an AA/AAA project that uses it
- Expertise ranging from utilizing callbacks, to spatialization techniques to debugging via Profiler, API extension and optimization

FMOD

- 12 Years of experience, shipped mobile games with it, and worked on a Unity/FMOD based AA project for the past year as an audio lead

REAPER

- 10 Years of experience with it, as my main sound design DAW
- Python scripting, batch processing, able to setup and use FMOD + Reaper and Wwise + Reaper integrations
- Using it as a sound library database via Media Explorer and Databases

OTHER

- Comprehensive usage of audio related software such as iZotope RX, Adobe Audition, FX plugins and VSTs such as FabFilter, AudioThing, SoundToys etc.
- 15+ years of audio and video editing experience using Adobe Suite tools.
- Field recording experience in multiple context, as a sound artist an foley artist.
- Creating and updating Asset Trackers and Game Audio Design Documents

POSTSTATION UI - One Variable GmbH (2024)

Worked on creating a front-end for the Poststation application, making API design decisions together with the product creator/owner, as the solo web developer on the project. Used Vue.js/Typescript for front-end, and Node.js for communication with the REST API built on top of Rust.

K5 FACTORY (AUGUST 2023 – DECEMBER 2023)

Worked on the official Oktoberfest VR Game supported by the Bavarian Government, as a technical sound designer. Worked with Unity, FMOD, Steam Audio and Google Resonance stack, to be shipped with Meta Quest 2 or later. I was responsible for creating, testing and implementing technical audio solutions, sound effects and music to be used in social VR.

ZA/UM STUDIO (MAY 2022 – JULY 2023)

As the first permanent audio person to have been recruited by the studio, I was the audio lead for two unannounced projects (one in Unity + Wwise and another in Unreal Engine 5), I also took part in establishing a new audio department for the company, implemented and documented best practices in cross-collaborative teams from an audio context, and served as the company's main audio systems designer, and made crucial technical and aesthetic decisions where needed. I also took part in hiring new personnel, writing audio design documents, sharing game audio processes with other departments for transparency and educational purposes.

“TIDES, OR AN INEVITABLE UNFOLDING” (AUGUST 2021 – JUNE 2022)

Collaborated with sound artist Pedro Oliveira on a web-based piece for ZKM Karlsruhe, I was responsible for web audio conceptualization and implementation.

OAK NATIONAL ACADEMY (NOVEMBER 2021 – APRIL 2022)

As a front-end engineer I worked on improving the already available online classroom and teachers hub implementation, in close collaboration with design and UX teams. I also took part in implementing new features such as timed quizzes, and updating and refactoring the design system components for the government funded UK organization.

EDUCATION INNOVATION LAB (JULY 2021 – OCTOBER 2021)

Worked on the public workshop pages for the Digital Sparks app, using the latest React.js features and modern CSS techniques.

DRAKNEK ORG (JANUARY 2021 – MARCH 2021)

Re-design and development of the Draknek Limited website.

PRATER DIGITAL (AUGUST 2020 – DECEMBER 2020)

Worked as the creative & technical director for the cultural office of Berlin, and designed and developed a WebVR room using Mozilla Hubs.

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TECHNOLOGIES

- Fluent programming and scripting with vanilla JavaScript, HTML/CSS and Python
- 10+ years of professional work experience using React and Vue.js, in addition to variants like Next.js and Nuxt
- Unreal Engine audio programming using C++ and Blueprints, in addition to gameplay and VFX programming
- C# scripting in Unity
- Professional UX/UI Design experience as a UI engineer
- Special attention to Accessibility and scalability
- Setting up source control/version control and implementing best practices
- Extensive use of Jira, Confluence and others collaborative production software.

EDUCATION

MIMAR SINAN FINE ARTS UNIVERSITY INSTITUTE OF SOCIAL SCIENCES

- B.A. in Musicology with a focus on cognitive musicology and film/video game music.
- M.A. (unfinished) on role of expectation in film/video game music.

MIMAR SINAN FINE ARTS UNIVERSITY STATE CONSERVATORY (1996-2003)

- Eight years of classical music education from middle-school to university level, with a focus on Classical Double Bass, Conservatory diploma.

APPLE INC. (FEBRUARY 2019 – MARCH 2020)

Frontend engineer, responsible for rewriting several React.js components in Vue.js, in addition to working closely with the design and UX team on implementing new features for the SwiftUI Tutorials website.

GATSBY INC. (JULY 2018 – SEPTEMBER 2018)

Design and development of several new pages for the showcase section of the Gatsby v2 website.

TRAVIS CI GMBH (DECEMBER 2017 – APRIL 2018)

Worked on the Travis web application as a frontend developer.

SOUNDMINER INC. (MAY 2017 – MAY 2018)

Created the web application version of their audio file management software using React/Redux.

TRINT (NOVEMBER 2016 – FEBRUARY 2017)

Worked as a React consultant, built components with React and Sass to be used in the new UI of the Trint web app.

GROUPBY INC (SEPTEMBER 2016 – DECEMBER 2016)

Worked as a Frontend developer/consultant to create and implement responsive page designs for mobile devices.

COMPOSER AND SOUND DESIGNER | WEE TAPS (2015-2016)

Created the sound design and music for the new Wee Taps game jingles.

COMPOSER, SOUND DESIGNER, IMPLEMENTER | LAVA FEVER (2014-2015)

Created and implemented all music and sound effects for the game. Used FMOD as the audio middleware and worked with Unity.

FREELANCE FRONTEND WEB DEVELOPER (2014-...)

Creating websites for clients using the latest web technologies and best practices.

T.A. AND LECTURER IN HUMANITIES COURSES | SABANCI UNIVERSITY (2011-2016)

Taught courses titled Major Works of Classical Music and Major Works of 20th Century Music.

LECTURER IN HUMANITIES COURSES | MIMAR SINAN FINE ARTS UNIVERSITY (2011-2012)

Taught courses titled Opera History, Contemporary Music and Film Music.