



David Olofson

Senior Developer

Bergsgatan 1B 1101
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Sweden

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Experience

Audio Programmer, [Arrowhead Game Studios](#)

Jun 2021 - Nov 2024

- Environmental reflections, occlusion, and obstruction for weapons
- Timestamped MIDI event manager for accurate weapon fire timing
- Wwise game integration; voiceover, weapons, custom plugins etc
- Updates and maintenance of voiceover related tools

Founder/consultant, [Olofson Arcade/Olofson Consulting](#)

Sep 2010 - Present

- Game development
- Audio engine development
- Graphics backend implementation
- Virtualization, machine code translation

Senior Developer, [Sandvine](#) (formerly Procera Networks)

Aug 2013 - Jun 2021

- Implementation and maintenance of drivers for NICs and bypass solutions
- Low level DPI engine development in kernel space
- Communication protocols, sync. of distributed workloads, optimization.
- Occasional dealings in related codebases, such as the Qt GUI client, Python API, test suite, and system scripts.

Programmer, [Reologica Instruments AB](#)

Feb 1998 - Apr 2010

- Control engineering, signal processing
- Maintenance of lab instrument firmware
- GUI application development using Delphi
- Design and development of RTAI based firmware
- Real-time scripting engine design and implementation

Education

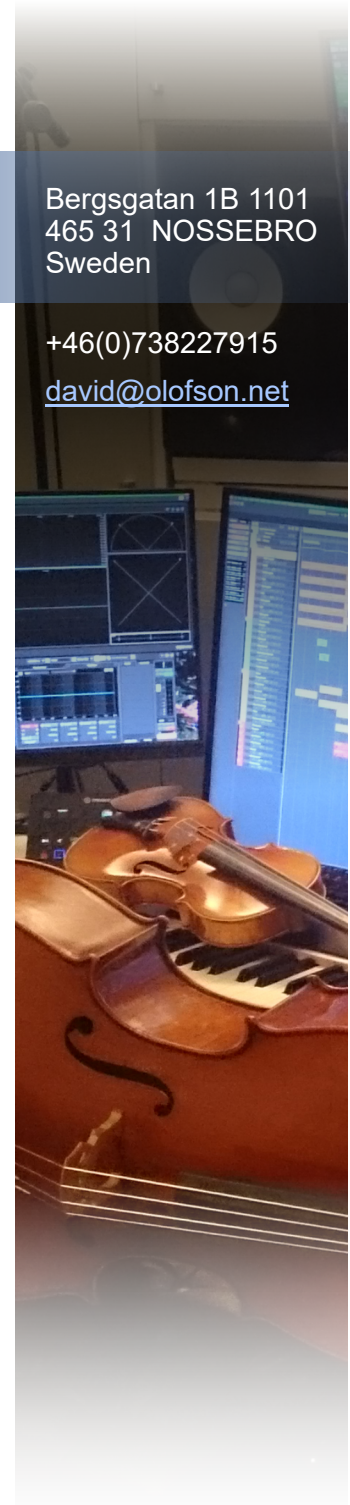
Halmstad University

1994 - 1996

- Engineering education, focused on embedded systems, control engineering, and electronics

Skills

- Programming
 - C, C++, Delphi, Python
 - Assembly (x86, 68k, 6811, 6510)
 - Linux, Windows, OS X, PS5
 - RT-Linux, RTAI, QNX
 - Control engineering
 - Device drivers
 - Communication protocols
 - Scripting language design
- Audio/Music
 - DSP, synthesis, effects
 - Wwise, custom audio engines
 - Composition, orchestration
 - Sound design
- Graphics
 - Software 2D rendering
 - API/backend implementation
 - Accelerated 2D and 3D
 - Windowing systems
 - GUI toolkit design
 - OpenGL, SDL, GLFW
- Game development
 - Stingray
 - Custom 2D and physics
 - SDL, GLFW, Chipmunk2D
 - Godot





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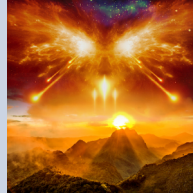
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Personal Projects

Composition and music production ([SoundCloud](#))

2016 - Present

- Orchestral, hybrid, trailer, jazz, EDM
- Sound design, synth programming, orchestration
- Mixing, mastering



Instruments and vocals

2018 - Present

- Violin, viola, cello, opera
- Modeled instruments, expressive controllers

[Westfield V6](#), trackday project car

2005 - 2016

- Westfield SEiW based road legal trackday car with custom drivetrain
- Jaguar V6, Honda S2000 gearbox, custom intake and exhaust, MegaSquirt
- Custom embedded PC instrumentation with TFT screen and LED modules

[Audiality 2](#), real-time scripted modular synth/audio engine

2011 - Present

- Modular synth engine with sub-sample accurate scripting
- Real-time and off-line rendering; results can be used recursively
- Buffered and callback audio streaming into/out of voices

[EEL](#), The Extensible Embeddable Language

2002 - Present

- Dynamic high level language with C-like syntax
- Designed for real-time applications
- GUI toolkit and various game oriented modules
- Bindings for SDL2, OpenGL, and Audiality 2

EELSynth, a simple synth prototyping test bed

2007 - 2011

- FFT based "massively additive" synthesizer
- Some simple synth plugins
- Basic MIDI sequencer
- Written all in EEL

[Kobo Redux](#)

2017 - Present

- Modernized remake of Kobo Deluxe
- Time rewind/replay based mechanics
- Real-time Audiality 2 sound effects



Kobo II

2011 - 2012

- Twin stick shooter game, loosely based on XKobo/Kobo Deluxe
- Written in EEL over custom engine
- Uses SDL, OpenGL, Audiality 2, and a custom GUI toolkit

Kobo Deluxe

1999 - 2007

- SDL port of XKobo, subverted into a test bed for various ideas
- Audio engine with modular synth toolkit for rendering sounds

