

I'm an experienced software developer, technology journalist and author of technical reference books. My interests primarily lie in software & hardware development, robotics, AI, game development and related fields.

Published works

Hands-On Embedded Programming with C++17

C++, Embedded, AVR, ESP8266, ARM, FPGAs, VHDL. | 2019 | Packt Publishing

Mastering C++ Multithreading

C++, Multithreading, OpenCL, OpenMP, Open MPI. | 2017 | Packt Publishing

Mastering AndEngine Game Development

Java, C++, Android, OpenGL, GLSL | 2015 | Packt Publishing

Technologies and Languages

Natural languages: English, Dutch, German, Japanese.
Programming languages: C++ (98, 11+), C (89, 11), Ada (2012), Objective-C, PHP (4+), Java.
Libraries/Frameworks: Qt, LibPoco, LibSDL, ffmpeg, SQLite, Boost, OpenCL, OpenMP.
HDLs: VHDL, Verilog, SystemVerilog.

Work experience

Science, tech journalist
Contributor

Hackaday
Remote, hackaday.com

Sep 2018 – Present

- Covering current affairs and new technologies.
- Researching and writing background articles on specific technologies, standards and people of importance in science and technology.

Software, game-developer
Co-founder

Nyanko
Remote, Netherlands/Canada

Jun 2006 – Present

- Developed 3D game engine based on OpenGL, OpenAL, PhysX with colleague.
- Created 3D models and textures/maps in Photoshop CS5+, 3DS Max, Genetica.
- Development of a 3D game using Unreal Engine 4 and primarily 3DS Max 2017 and Substance Painter.
- Android & iOS application development.
- Website development in PHP, SQL, HTML/CSS.

Senior Software Developer

Synyx
Karlsruhe, Germany

Mar 2013 – Dec 2017

- Debugged and extended existing iOS mobile applications.
- Refactored and extended existing Android application.
- Creating a cross-compiling build system for Linux and QNX (embedded) targets.

- Developing embedded QNX and Linux-based C/C++ applications.

Senior Developer

VARA

Aug 2012 – Dec 2012

Hilversum, Netherlands

- Developed new features in the Typo3-based backend to facilitate new frontend capabilities.
- Maintained the existing backend systems written in PHP.

Projects (personal)

NymphCast: multimedia streaming solution.

- C++, NymphRPC, ffmpeg, libSDL.
- Client-server protocol for multimedia streaming.
- Uses AngelScript to extend functionality with 'apps'.
- Designed and developed protocol and reference implementation.

Sarge: Simple command line option parser.

- Feature-rich command line option parser written in C++ and Ada.
- Compact and fast.
- Implemented and ported to Ada.

NymphRPC remote procedure call library

- Hybrid client/server architecture with peer-to-peer characteristics.
- Compact binary protocol, implemented in C++ using LibPoco.

Universal Data Share: Peer-to-peer data sharing application and custom protocol.

- Allows file sharing without the need for a server.
- Uses automatic port-forwarding via UPnP library.
- Designed and developed the entire application and protocol in C++.

Projects (Synyx)

KulturApp

- Cultural app for the city of Karlsruhe.
- Updated the Objective-C-based iOS version for better iOS 5/6 support.
- Refactored the Java-based Android version and fixed bugs.
- Fixed bug in third-party OSM library related to Android garbage collection handling.

BMW RemoteApp

- Remote car control app for BMW customers in Objective-C.
- Added features, improved app together with colleagues.

Car infotainment system

- Primary developer on C/C++ component.
- Creating Makefile-based cross-build system for a wide variety of targets, including Linux (ARMv7 & x86), MacOS and Windows targets.
- Debugging and expanding existing testing infrastructure.
- Tracking down and fixing of bugs found by testers.
- Communicating with other developers on the project.
- Reimplemented the Apache Etch RPC protocol (server & client-side) in C++.