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Senior C++ / Systems Software Engineer · Build & Tooling· Software Architecture
Stockholm, Sweden · Remote

Profile

Senior software engineer with long-term professional experience, rooted in C++ and systems development. Strong focus on software foundations: build systems, tooling, CI/CD, and long-lived codebases. Combines hands-on development with architectural thinking and pragmatic technical decision-making.

Current focus

Independent consultant working on core software products and platforms. Typical assignments include shaping technical solutions from product requirements, modernizing codebases, adopting and improving tooling, stabilizing build and CI pipelines, and helping teams move faster without sacrificing quality.

Core strengths

- Translating business and product needs into concrete technical decisions and maintainable solutions
- End-to-end software development across systems, applications, and tooling, including build and CI workflows
- Technical leadership, mentoring, and knowledge sharing

Selected highlights

- Development and technical direction of software systems in high-reliability environments
- Migration and stabilization of large codebases and build systems
- Long-term C++ community organizer and convener of the Swedish ISO C++ standardization mirror group (StockholmCpp, SwedenCpp, SIS TK611/AG09)

Languages

German (native), English (fluent), Swedish

About

As a developer with extensive professional experience in various fields, my primary focus has been C++ development, although I am also proficient in other programming languages.

Throughout my career, I have contributed to numerous projects across diverse industries, targeting various operating systems and utilizing an array of tools and technologies. In addition to my hands-on experience, I have conducted training sessions in software development.

Over time, alongside my long-standing work as a developer, I have developed a strong interest in all aspects of the software lifecycle. My work is rooted in hands-on development across CI/CD, tooling, specification, verification, software design, and the pragmatic use of AI-assisted development tools. With the view that no system is better than the foundation it stands on, I stay directly involved at all levels, from development through tooling and infrastructure to architecture.

Beyond technical expertise, I am passionate about creating productive environments for individuals and teams. Over time, I have increasingly taken responsibility for shaping team workflows and lightweight processes that enable developers to focus on writing high-quality code. I enjoy combining hands-on development with fostering self-organized teams, improving collaboration, and creating an environment where great products can emerge.

I strive to balance an enjoyable work atmosphere with a focus on delivering high-quality results. As a structured and self-organized individual, I value the opportunity to collaborate and exchange ideas within a team.

Volunteer and open-source work

Community building and knowledge sharing have been a consistent part of my volunteer work, and I value creating platforms for open exchange. I am the organizer of StockholmCpp[1], the C++ user group of Stockholm, and the initiator of SwedenCpp[2]. I am co-organizer of the Cocoaheads-Stockholm[3] user group, where we chat about Swift and iOS development. Additional platforms I manage are the SwedenCpp homepage[4], the SwedenCpp YouTube platform[5] and the Cocoaheads Stockholm YouTube Channel[6].

Occasionally I create blog posts[7]. The most popular document is my bitbake tutorial[8], which also serves as an example of how technical documentation I create can look like.

In 2021 I initiated, the creation of a Swedish mirror of the ISO subcommittee ISO/IEC JTC1/SC22. This mirror is TK611/AG09. I am the convener of SIS TK611 / AG09[9] and a member of the Swedish WG21 expert group, which is the subcommittee for ISO C++ standardization.

I participate in various open-source projects, my GitHub profile is https://github.com/a4z. From time to time, I do presentations. Some of these talks are on YouTube, mostly on C++ related topics.

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[1] https://www.meetup.com/StockholmCpp
[2] https://www.meetup.com/pro/swedencpp/
[3] https://www.meetup.com/cocoaheads-stockholm/
[4] https://www.swedencpp.se
[5] https://www.youtube.com/@SwedenCpp
[6] https://www.youtube.com/@CocoaHeadsStockholm
[7] https://a4z.noexcept.dev/blog/
[8] https://a4z.noexcept.dev/docs/BitBake/guide.html
[9] https://www.sis.se/standardutveckling/tksidor/tk600699/sistk-611/

Professional career

King
Stockholm Sweden
(Consult)
Oct 2025 – Dec 2025

Senior Build Engineer
Bazel, CMake, C++, Technical-Writing

Support of the build engineering team during the startup phase of the transition from CMake to Bazel.
Migration of CMake components to Bazel, added sanitizer builds for desktop and mobile platforms, worked on tool integration, supported user onboarding, and created technical onboarding documentation.

UXStream
Stockholm Sweden
(Consult)
Jan 2025 – Sep 2025

Senior QA Specialist
C++, Rust, JavaScript/TypeScript, Technical-Writing

Supporting a young startup developing an interactive real-time streaming solution in its transition from prototype to production. Introduced automated end-to-end testing and encouraged the team to adopt more unit testing to stabilize the system. Established a lightweight, self-organized workflow, contributed to testable software design, CI/CD workflows, created onboarding and technical documentation, and supported team growth through knowledge sharing.

ObjectBox
Berlin, Remote
(Consult)
Sept 2024 – Nov 2024

Software Developer
C++, Swift, CMake, Go

ObjectBox is a NoSQL database written in C++ with bindings to various other languages. My primary focus was modernizing the Swift component and developing the Swift Package Manager package, including a model generator as a Swift package plugin. Additionally, I contributed to documentation and CMake module testing of the model generator for C++, which is implemented in Go.

Elekta **Stockholm Swedem** (Consult)	**Senior Software Architect** **C, C++, Python, Docker, GitHub CI, Linux, Windows, embedded platforms, Technical writing, definition of tooling, Software Architecture**
May 2023 – July 2024	In my role, I spearheaded the development of a new prototype for next-generation Linear Accelerator (LINAC) control software. Additionally, I established new CI/CD pipeline concepts, defined essential tooling to enhance code quality assurance, and introduced SOUP dependency handling with vcpkg. I also transitioned existing codebases to C++20 and shared my expertise in C++ programming. Furthermore, I was actively involved in interviewing and selecting developers, helping to build and grow a strong, capable team.
Tobii **Stockholm Sweden** (Consult)	**Senior Software Engineer** **C, C++, Conan, Python, Docker, Bazel, Jenkins** **Linux, Windows, MacOS, Android and embedded platforms**
May 2021 – April 2023	I joined the software core team responsible for maintaining a unified software architecture for one of Tobii's core components, primarily developed in C++ and C. I contributed to implementing a standard build architecture based on Bazel and developed and integrated a fluent CI/CD pipeline. I established a unified third-party dependency management method using Conan and helped enhance build container integration and deployment processes to reduce build times.
Electrolux, **Stockholm Sweden** (Consult)	**Senior Software Developer** **C++17, CMake, djinni, Conan, Swift, MacOS, iOS, Android, Fastlane, Jenkins pipelines, git, Bitbucket, Jira, Confluence**
Oct 2019 – May 2021	I joined an international and distributed mobile developer team helping to develop a C++ core component for iOS and Android. Beside development, I did code review, build and CI integration for iOS and Android, C++ build system via CMake and dependency management via Conan for Linux, MacOS, iOS and Android.

Hands Development AB
Stockholm Sweden
(Owner)
Aug 2019 - present

Founder & Freelance Developer
Operating my independent software consultancy

During the summer of 2019, I established my freelance business. In addition to the possibility of working as a freelancer, it also provided me with more opportunities to contribute to my community and open source projects.

Maquet Critical Care AB,
Stockholm Sweden

Senior Software Developer and Software Architect
C, C++98/11/14/17, Qt5, distributed messaging system based on ZeroMQ, CMake, yocto, GitHub, bitbucket, Ruby, shell scripting, Red Hat 7, ansible, docker, Jenkins + pipelines

Mar 2018 – July 2019
(Employed)

(Consult via Tritech)
Oct 2014 – Feb 2018

Development of the touch screen base panel and control unit for SERVO-air mechanical ventilator, Servo-U ICU ventilator and Servo-N neonatal ventilator. Development of a test application for hardware manufacturers.

From begin of 2017, software architect and lead developer in a pre-study project, developing the future software platform for Getinge touch screen base panel and control unit devices. Design, creation and prove of concept for a continuous delivery strategy for future software development. 2018 this work turned into a production project, forming the base of new generation of software for touchscreen driven devices.

Active participation in team workshops, among others, showing and teaching modern C++ and Linux/RHEL7 best practices.

Boule Medical AB,
Stockholm Sweden
(Consult via Tritech)
Mar 2014 – Sept 2014

Senior Software Developer
C, C++11, Gtk/Gtk++, Shell script, Debian and Ångström Linux

Joined as consultant the Boule development team to help finalizing the next generation hematology system in time.

Development of a GTK based touchscreen application for the device. Design and implementation of the system update mechanism. Development of a Linux kernel module for utilizing the AM335x RTCSS Scratch Register.

Tritech Technology AB, Stockholm Sweden

Senior Software Developer and Software Architect
My employer while working as consultant.

Feb 2014 – Feb 2018

My employer, while working as a consultant. Even spending 100% of my time on the customer site, I could contribute to some additional activities for Tritech:

Organizer of some technique evenings with tech-talks.
Holding some educational presentations for my colleagues and guests.
Design of a new API for controlling lightning, which has been validated in a lab installation.
Creation of the first version for some chapters of my BitBake guide at a Tritech lab.
https://a4z.bitbucket.io/docs/BitBake/guide.html

In 2021, Tritech became part of Prevas.

Topcon Positioning Systems, Stockholm Sweden

Senior Software Developer
C++, Linux, Windows, Windows CE, Qt, Boost, SQLite3

Dec 2011 – Jan 2014

Joined the Swedish part of an international development team focused on the Field part of the Topcon MAGNET Software suite.

MAGNET Field is a field application software that enables to collect survey mapping data and perform construction and road layout using total stations, levels, and GNSS receivers.

Stream Unlimited, Vienna Austria	**Senior Software Developer** **C++, Ruby, MHEG-5, CMake/CTest/CDash, git, Linux, iptables**
May 2010 – Nov 2011	Part of a development team that developed a TV/Video-recommendation system for Aprico TV Solutions. Development of a MHEG-5[10] application on a CI+ module as GUI for a VoD-portal. Setup of a CMake/CTest/CDash for an existing project. Short time administration of Linux servers and firewall setup, help finding a new solution and responsible persons who could take over this work.
Self-Employed, Vienna Austria	**Freelance Software Developer** **C, C++, 2D and 3D libraries and technologies like SDL, Ogre3D and openAL, Python, shell script, SQLite3** **Various Linux distributions, samba, LDAP, IMAP server, iptables based firewall setup, PostgreSQL**
Jan 2002 – Apr 2010	Started this part of my career with the goal to work exclusively on Linux and with open-source technologies. It worked. Coaching and consulting activities for small and medium-sized enterprises for Linux and Software development. Design and development of Linux based gambling machines for two in Vienna based companies.
Technology Medical Care AG, Vienna Austria	**Software Developer** **MS SQL, C++, Java, VB, COM/COM++, Windows 2000, Linux**
Nov 2000 – Dec 2001	Software architect and developer for a fully functional and live tested prototype of a patient and infusion pump monitoring system for intensive care. http://www.freepatentsonline.com/EP1162912.pdf

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[10] https://en.wikipedia.org/wiki/MHEG-5

Artaker CAD Systems, Vienna Austria	**Software Developer** **MS SQL/TSQL, ASP, HTML Java Script**
Sept 2000 – Nov 2000	Development of the Elisa web application.

Mii, Vienna Austria	**Software Developer** **MS SQL, TSQL, VB, Access, ASP, WSH, WindowsNT/2000**
Apr 1999 – Aug 2000	Database design and analysis, design development of database- and n-tier-applications. Consultant for several customers, for example Bank Austria, Austrian Airlines and Lauda Air.

Porzellanmanufaktur Augarten GmbH & Co KG, Vienna Austria	**Software Programmer** **MS SQL, TSQL, VB, Access, WindowsNT**
July 1998 – Mar 1999	Development of a POS software for Augarten shops in Austria with MS-SQL backend in Vienna. Administration and development of a report system of the production database.

Self-Employed, Vienna Austria	**IT Consultant** **VB, Access, MS Office VBA, MS SQL, WindowsNT**
Sept 1995 – June 1998	Back-office automation, database and application development for some small and medium-sized enterprises located in Vienna.

Summary

Employments:	2019 – current: Self-employed, consultant
	2018 – 2019: Maquet Critical Care AB
	2014 – 2018: Consult via Tritech Technology AB
	2011 – 2014: Topcon Positioning Systems
	2002 – 2011: Self-employed
	2000 – 2002: Technology Medical Care AG
	1999 – 2000: Self-employed consultant via Mii, Artaker
	1998 – 1999: Porcelain Manufactory Augarten, IT Department
	1995 – 1998: Self-employed
Recently used tools and technologies:	C++ 98 to 23, Rust, Go, Python, Ruby, Shell scripting, JavaScrip/TypeScript, Swift, SQL, Gcc, clang, MSVC, XCode, CMake, Conan, vcpkg, Bazel, Testing, Sanitizer, Linux Windows MacOS, Ansible, Docker, Jenkins, GitHub-Actions, Yocto, Asciidoctor, Markdown, mkdocs, doxygen, GitHub, GitLab, Mercurial, Confluence, Jira, Claude, Codex, Copilot
Volunteering	Community organizer of the local C++ User Group, Co-Organizer of Cocoaheads Stockholm
	Convener SIS TK611/AG09, the Swedish ISO/JTC1/SC22 mirror
	Member of the Swedish ISO wG14 and WG21 expert group
	Voting member of the C++ standardization committee
Education and courses:	Member and participant at A Cloud Guru/Pluralsight
	EN ISO 17024 certificated coach adult education (communication, economy, IT)
	Academy of information technologies and computer science, WIFI Wien
	Microsoft Certified Professional: 070-175, 070-176 (Designing and Implementing Desktop and Distributed Applications)
	Study of system and network administrator, WIFI Wien
	Study bookkeeping and accounting BFI Wien (polytechnic)
Languages:	German (native)
	English
	Swedish
Hobbies:	Open-Source Software
	Creating and doing presentations
	Organizing a C++ community
	Creating tech talk videos for YouTube
	Reading, hiking