Curriculum Vitae

Markus Auvinen

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Profile

As a specialist in developing high-quality software products, playing with, working with and studying computer systems has been a great part of my life since the 80's. Different domains such as the web, the medical field, the car industry and the Internet of Things have been explored and all aspects of computer system development have been studied, not least Bluetooth starting with my thesis work in 1999. Especially I'd like to emphasize my insights into the process of developing and maintaining high quality software products.

I am a dedicated, social and careful person, which shows in my interest for other people as well as the high quality I aim to deliver in all products and projects. When need be, my physical and mental strength and endurance, built in the Qigong field and out in the nature, makes me able to perform at an excellent level to meet the customers' needs.

Where ever I work I try to implement the best practices of software development that I have learned through the years. It is in itself a challenging and therefore interesting task as you can't force people nor organisations to change; you can only try doing your best and hopefully they will follow.

Below are some of the projects I've been working on over the last 4 decades. As I currently focus my efforts on C++, Python and the agile way of work I have skipped irrelevant experiences.

Experience

Amina Charging 2024 Sandnes Norway	Senior Embedded Consultant Integrated a Quectel FCM360W wifi chip into the existing EV charging station's code. OCPP implemented with µOCPP, the wifi driver in C and application code using Flux implemented in C++. Code running on an i.MX RT1060 using the ARM Cortex-M7. ThreadX. Visual Studio Code. Git. SteVe OCPP backend. WebSocket. BitBucket.
FIS Global 2021 – 2023 Oerlikon Switzerland	Senior Software Engineer Working on a card payment system running in banks. Written in C, running on AIX, Solaris and Redhat Linux servers using the Oracle Tuxedo framework. Eclipse.
Hamilton Medical 2019 – 2021 Bonaduz Switzerland	Senior Embedded Engineer Working on ventilator control software in a team using IBM Rhapsody, SubVersion (SVN), Jira and Bamboo. Code in C++17 with selected parts from 20. Also implemented an MQTT test framework in Python 3.
Acorn Technology AB 2014 – 2018 Gothenburg Sweden	2017 – 2018 Embedded developer at Husqvarna Connecting chainsaws and devices to the IoT using LwM2M (the Wakaama C implementation) in FreeRTOS on a Nordic nRF 52832 BLE chip. Encryption by TinyDTLS. Git. Eclipse. 2016 Embedded developer Working on a ventilator for home use, an embedded system running treatment code written in C on an M32 processor and other functionality written in C++ as well as the GUI written in Qt, on an iMX6. 2015 Developer Various in-house projects, such as setting up Jenkins and Amazon servers in the in-house Continous Integration chain. 2014 Android developer Developed a Bluetooth Low Energy service handling the communication between Android devices and some of the shaft alignment devices produced by SKF.

Ajilon Consultants AB 2012 – 2014 Gothenburg Sweden	2014 Java developer at Volvo IT Working at Volvo Group Telematics, Wireless Car, with their telematic solutions. 2013 Web developer Created the gemenskaparen.se site using Ruby on Rails and Bootstrap. 2013 Java and database developer Developed a passenger and driver information system for public transport. The onboard computer's core program was built in Java on Linux. Traffic data from a central server, processed and stored in a local SQLite database before used – in core logic and the GUI, made as an app on an Android device. Passenger signs were handled through serial port and stop and door signals were given by an hardware API. 2012 Android developer Developed an app with sqlite databases, data access objects and entities; backend integration, push notifications, Facebook and Twitter integration, debugging, animations, drag and drop events, customizing visual components and playing custom sounds on specific events as well as porting applications from iPhone to Android and distributing them to Google Play and Appland.
EIS by Semcon AB 2005 – 2012 Gothenburg Sweden Rüsselsheim Germany	2010 – 2012 Software developer Development and maintenance of a flight recorder for Volvo Cars. Own HW with embedded SW in C (Eclipse, Scons). CAN. FlexRay. LIN. USB. Ethernet. GUI on Windows in Borland C++. CI using Jenkins. Doxygen. Enterprise Architect. Scrum-oriented workflow using Trac and SubVersion. 2009 Software designer Implementing the co-existence of a car phone with a Bluetooth handset in the Volvo Infotainment system. C. C++. Eclipse. Scons. Cruise Control. 2005 – 2007 Verification Engineer Main node verification of the infotainment software used in eg Volvo S80 and Land-Rover using StarTest, CANAlyzer and OptoLyzer for automatic tests. Assignment included requirement analysis, test description development, test environment development (Perl) and implementation of automatic tests in Tau.
Neoventa Medical 2000-2002	Embedded RT monitor of the ECG of a baby being born. Visual Studio for C++. PharLap. DOS. MatLab. SW and system tests. Wrote test specs.
Volvo IT 1998 - 1999	Visualization of gravel tear on a car by its own wheels. AIX Unix. Programming in C. Visualisation using Catia (and Fortran code). Archive application for NC files in Unix using an Oracle database, X/Motif GUI and code in C with Embedded SQL.

Education

2004-2005 Chalmers University of Technology (CTH), Göteborg Distributed real-time systems

1992-1999 Chalmers University of Technology (CTH), Göteborg MSc Electrical Engineering

1996-1997 Technische Universität Hamburg-Harburg, Harburg, Germany Informatics

Languages

Swedish (native)

English (fluent)

German (fluent)

Finnish (mother tongue)

Spanish, Italian, French (basics)