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 early 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 has been performed. 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 qi gong field and the crossfit box, 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 (Continuous Integration, peer reviews, Git, agility etc). It is in itself a challenging task as you can't force people to change but I need to keep trying because seeing resources being wasted has always troubled me.

Employment history

Amina Charging 2024 – ongoing Sandnes Norway	Senior Embedded Consultant Developing EV charging stations in Norway. OCPP implementaion from Ampeco. Hardware such as i.MX RT1060 using the ARM Cortex-M7. Zephyr. C. C++. Python. Jira. 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.
Hamilton Medical 2019 – 2021 Bonaduz Switzerland	Senior Embedded Engineer Working on ventilator control software in a team using Rhapsody from IBM, SubVersion (SVN) from the old ages, Jira and Bamboo from Atlassian. Code in C++17/20. Implemented an MQTT test framework in Python.
Acorn Technology AB 2014 – 2018 Gothenburg Sweden	2017 – 2018 Embedded developer Connecting devices to the IoT using LwM2M (Wakaama) in FreeRTOS on a Nordic nRF 52832 BLE chip. Encryption by TinyDTLS. 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. 2016 Android developer Implementing a creative app for connecting people and sharing ideas. Done with Cards, Tabbed activities and floating action bars. FireBase as backend. 2015 – 2016 Java developer Implementing the new OMA LwM2m protocol for a customer in the measurement data business as a Bootstrap server, bootstrap client and a LwM2m server. Written in Java 8 using Spring Boot and the Leshan implementation of LwM2m. 2015 Developer Various in-house projects, such as the FairyBooks Android app and an Android ping-pong analyser app, as well 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.
	2014 Web developer
	Worked with a service having a frontend written in AngularJS using a REST API implemented with Django.
Ajilon Consultants AB 2012 – 2014 Gothenburg Sweden	**2014 Java developer** Working at Volvo Group Telematics, Wireless Car, a part of Volvo IT, 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 – 2013 Software developer** Development and maintenance of a flight recorder used by Volvo Cars (HW, embedded SW in C (Eclipse, SCons), CAN, FlexRay, LIN, USB, Ethernet, GUI on Windows (Borland C++)). All code run by Jenkins. Source code documentation in Doxygen and Enterprise Architect for documenting the system as a whole. The project was managed using a Scrum-oriented workflow using Trac for ticket handling and SubVersion for version control. **2009 Software designer** Implementing the co-existence of a car phone with a Bluetooth handset in the Volvo Infotainment system (C, C++, Eclipse, SCons, Merant Dimensions for version control and Cruise Control for CI). **2007 - 2009 Resident Engineer for Hitachi Automotive Systems Europe** At the GM (Opel) plant in Rüsselsheim, Germany, for a Hitachi Engine Control Unit in the new Opel Insignia (Car of the Year 2009). Using Lauterbach and CANalyzer in troubleshooting the ECU. The main task was to ease communication between the Germans at Opel, the Americans in Detroit at both GM and Hitachi, and the Japanese at Hitachi in Japan. **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.

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)

Separate courses

2019 Non-violence, Per Herngren

2018 Non-violent communication, Per Herngren

2010 Non-verbal communication, Sensus

2009 Safer C

2006 Rhetorics, Peter Haraldsson

2006 Patterns, Combitech

2006 Precision och improvisation – on experience and silent knowledge, Combitech

2006 Architecture of small embedded realtime systems, Combitech

2006 Requirement management, Combitech

2005 Test of software and system, Combitech