

# Rickard Eilert

Software Sales   Project Manager   Product Owner   Developer



## PERSONAL SUMMARY

Skilled computer engineer with a positive attitude. Programming for 23 years with experience as developer, architect, project manager, product owner, and presales.

Can discuss business deals, project roadmaps, and technical implementation details with customers and partners in an international context.

In any role, interested in optimising a project, involving multi-site teams, multi-vendors, information sharing, risks, hard deadlines, budgets and people with different personalities and responsibilities.

Currently looking for interesting job opportunities in software companies, either as an employee, or as a self-employed consultant.

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Located in Stockholm, Luxembourg  
Born 1987 in Växjö (Sweden)

*Fluent:* Swedish English German

*Good:* French Italian Spanish

*Novice:* Portuguese Serbian Icelandic

## WORK EXPERIENCE

### Frontend Playback Engineer

aug 2019 – now

Helped Telia transition from plugin-based video players to MSE/EME. HTML5 frontend development and especially JavaScript players integration and tweaking of dash.js on teliaplay.se and shaka.js on Chromecast. STB UI development. Youbora statistics integration. Familiarity with broadcast systems, video encoding, packaging, streaming, ad tech, subtitling, DRM, dash, smooth, hls.

### Product and Tech Sales Architect at Zenterio AB

jan – aug 2019

Meetings with partners, current customers, and new customers all over Europe and Middle East, to discuss potential business deals with Zenterio, a company which provided software for STBs (set-top boxes). Part of the product team, which steered the development at Zenterio to fit current and future customers demands. As a technically savvy salesman, developed demos, discussed technical details and made time and cost estimations. Managed a UI design research cooperation with the Linköping University. Experimented with UI performance on STBs during free moments, then developed a new demo product which has the world's fastest HTML UI on low-end STBs. Unfortunately, Zenterio failed to acquire planned investments, which lead to the bankruptcy of the company and an abrupt end to promising businesses.

### Product Owner & Project Manager at Zenterio AB

2017 – 2019

Responsible for the strategy, technical planning, budgeting, integration and performance optimisations of web browsers on various embedded platforms running Zenterio OS. Prioritised tasks to make sure requirements and deadlines were met by keeping in daily contact with customers and developers on several sites. Used knowledge about web browsers gained from previous career at Opera Software, HTML5 app performance research and not least from having built a browser from scratch at home. Lead Zenterio to successfully integrate the Cobalt browser and certificate the YouTube TV app on several STBs. Furthermore, lead the integration of the WPE (WebKit Platform Embedded) browser, and improvement of its compatibility with several legacy apps using MSE+EME (dashplayer, hasplayer). Capability to work under stress during a hectic year, which included overtime and weekly travelling between developers in Linköping, RT-RK consultant developers in Belgrade, customer + development teams at Deutsche Telekom in Darmstadt, and partners at Metrological in Rotterdam.

### Integration Expert at Deutsche Telekom GmbH

2016 – 2017

Two years on site at Deutsche Telekom's offices in Darmstadt (Germany) as an integration expert. All-knower, involved in more or less all activities in the project. Helped Zenterio to create an abstraction of Huawei's backend APIs, and helped Telekom's UI Team to write an HTML UI for the Zenterio OS, using mentioned APIs + STB-control APIs. Clarified requirements, implemented features, demonstrated new deliveries for Telekom employees, participated in troubleshooting and performance-improving taskforces. Involved in porting twenty apps to the Zenterio platform, including Telekom HTML5 apps, Sky, YouTube, Netflix, Amazon, and more.

**Software Engineer at Zenterio AB** **2015 – 2016**

Analysing customer requirements and programming the backend of JavaScript APIs in C++. Sole developer of an HTML5 application used for testing all JavaScript APIs. Starting as a side project, the application is now a crucial part of the company’s workflow, and used by hundreds of developers, testers and customers every day.

**Software Engineer at Systemagic AB** **2014 – 2015**

Working on in-house projects, designing and implementing a framework which assists cross-TV-platform HTML5 app development. It provides a JavaScript library that works for many TV platforms by wrapping their platform-specific code, and it has a build system written in Python, which packages code for supported backend platforms. Researched HTML5 run-time performance and web browser inner workings. The company Systemagic was acquired by Zenterio.

**Software Developer at Opera Software AS** **2009 – 2011**

Wrote a presentation-creating HTML5 app, which works like Google Slides (PowerPoint). It pushed the limits on what was possible and resulted in a list of suggested improvements and bug reports on how Opera Presto handled Javascript, the DOM, CSS3. Thanks to that, Opera became more standards-compliant. Work also involved solving bugs in the Bream UI, which improved the user experience in Opera Mobile/Mini for hundreds of millions of users. Worked full time from the office in Linköping during summers, and remote with colleagues in Linköping, Oslo, Wrocław at 25% whilst studying full time.

**Student Counselor at Linköping University** **2009 – 2011**

Worked 25% arranging events for presumptive and current IT students, giving advice concerning career and specialisation opportunities, informed about student aid, scholarships, had performance reviews with all freshmen, gathered statistics and proposed improvements for the IT programs to the Study Board.

**Web Community Developer at Staffan Wadsworth AB** **2008 – 2009**

Worked on weekends during military service (conscription), implementing new features on a Swedish web community called [poeter.se](http://poeter.se). E.g. improving security and integrity by rewriting how a user password was stored and reset. HTML5, PHP and MySQL.

**Developer at Crepido AB** **June – Aug 2007**

Added features and rewrote parts of the company's ERP system written in HTML5, PHP and MySQL. Changed the code which generated the invoice pdf so that all logos, names etc. were not hard-coded. This allowed customisation of the generation of the invoice so that Crepido could sell their in-house developed ERP system to other companies.

**COMPETENCE DOMAINS**

Browser Development	HTML5 & JavaScript	Presales
Game Dev, Gimp, SDL	Network Protocols	Project Management
Computer Graphics, OpenGL	Distributed systems	Product Management
Software Performance	PHP CGI NodeJS SQL	Team Management
Parsers, Compilers, AST	Setup OS, LAMP, Filesystems	Time and Cost Estimation
Asm, VHDL, Microinstr	Linux Android Windows	Requirement Specification
Design patterns	IPTV	Agile
C/C++, Ada, Pascal, Basic, VBA	Language Technology	Emacs, Eclipse, cvs, svn, git
Java, Python, Lisp, Prolog, AI	Programming Paradigms	Jira, Crucible

## ACADEMIC QUALIFICATIONS

European Languages 2012 – 2014

Linköping University, Albert-Ludwigs-Uni Freiburg

Master in Computer Engineering 2010 – 2012

Linköping University, École Polytechnique de Montréal

Military Service (Conscription) 2008

Comm. Squad Leader at Leadership Reg. Enköping

Bachelor in Computer Engineering 2006 – 2010

University of Linköping

Upper Secondary Science Maths/IT 2003 – 2006

Katedralskolan Växjö

## LEISURE

Travel, spend time in international environments, and lived in several countries to satisfy curiosity and passion for learning languages. Free time spent programming hobby projects, doing reps in the gym, running in the woods, meeting friends and my Italian girlfriend. Interested in psychology, strategy games, artificial intelligence, philosophy, economy, and politics.

## MISCELLANEOUS

- Started and presided programming group during upper secondary school for 3 years. Regular programming meetings including snack sponsored by the school.
- Competed twice in the Swedish qualifications for the International Olympics in Informatics. Was among top 10 in Sweden. Won a programming scholarship in upper secondary school.
- Won some money taking part in [IMPA](#) and a sorting algorithm competition arranged by [PicSearch](#)

## HOBBY PROGRAMMING PROJECTS

### Web Browser

2015 – 2021

Wrote a C++ library for creating gui components for games. As I added more and more features, it turned into a full fledged Web Browser. Includes parsing of CSS, HTML and JS, building of a DOM, computing CSS, construction of a render tree, layouting, painting in different raster buffers, uploading to textures, and finally render with the GPU. CSS pseudo-classes and DOM bindings for its JavaScript Interpreter can dynamically change the content of the page. The end result is a customisable web browser which is fast and has a small memory footprint. It can be integrated into other projects, and/or be used on low-end embedded systems. It is comparable to Google's Cobalt web browser. Profoundly learned about CSS, HTML, JavaScript, and inner workings of web browsers.

### JavaScript Interpreter

2016– 2021

A JavaScript Interpreter in C++ which parses code into an Abstract Syntax Tree and then executes it. It has support for most commonly used features in newer JavaScript versions. It is easily extendible, and with an extremely small footprint, it is made to be integrated into other projects. There are plans to add a JIT-compiler but still not clear for which architecture: x86, ARM or MIPS.

### Web application ecosystem

2008 – 2014

Developed an advanced suite of modular JS apps, a JS library and server-side PHP scripts talking to a MySQL database. It resides on my own web/cloud server. Some web apps in the suite:

- Clone of the popular game Civilization, built with 4000 lines of JS code
- Chat app
- Media player using the YouTube API to gain access to the greatest media collection in the world
- Blog
- Colour picker
- File browser
- Glossary rehearsal program

- Editor with syntax highlighting
- A Javascript executioner
- A window system where multiple instances of all the above mentioned apps can be started and run in movable and resizable windows

### Romans and Barbarians I, II 2007, 2013 – 2014

Developed a real time strategy game resembling Age of Empires. It is written in platform independent C++ using SDL, has network support for up to 16 players, advanced pathfinding algorithm, and very low system requirements. In 2013 a sequel was made which has better graphics, fog of war, hills, more units, and a map editor.

### RSDL2 2013 – 2015

Developed a C++ library which wraps SDL2 and adds methods usually needed when developing graphical programs. It includes a whole system of GUI objects, their events, updates and graphics.

### Chess game 2012

Written in C++ and SDL. The AI uses the min-max algorithm and alpha-beta pruning. It usually defeats me.

### Design Pattern Analyser 2012

As part of a PhD team in Canada, a program was written which analyses C++ code to find occurrences of design patterns. It also tries to find anti-patterns to propose refactoring of code.

### PolyBanque 2011

A distributed application written in Java. Clients simulate different banks and are started on different computers communicating over TCP. Any client can be crashed anytime. Even so, the programs manage to keep their money data from corruption and transactions atomic.

### Language Translator 2011

A program that identifies lemmas, part-of-speech, parses sentences into tree-structures which then are translated with a dictionary, and the word order is changed if necessary.

### Raptor 2 2011

3D shoot 'em up game. Written in C++, OpenGL and SDL.

### Köttkvarnen 2010

A 14 MHz computer built on four small Programmable Logic Devices programmed using VHDL and ModelSim. It had video output to a TV through a scart cable, and input came from an old computer keyboard. Special assembler instructions copied graphical tiles fast. It worked like a Super Nintendo.

### Yxmördarn 2010

Robot built by in a team at the university more or less from scratch using low-level C code, JTAG and ATmega16 processors. It could drive around and shoot a laser.

### Android app 2009

Wrote an Android app to manage projects with deadlines, milestones, members, documents, etc.

### Bloodbath 2008

A clone of the popular game Liero where two worms in real time are trying to kill each other with a grand arsenal of weapons.

### C++ CGI library & Web community Maj – Aug 2005

Set up a web server and wrote a community where you could become member, have a presentation page, friends list, guest books, upload files, write in forums and chat with other members online. The client side part was written in HTML, CSS, and JavaScript, whilst the server side was written in C++ using a self-developed C++ CGI-library). Also developed an Internet forum for a boat club where the members had different permissions to threads (read, write, admin).

### Tetris

March 2007

Wrote a Tetris clone in Ada supporting network play for 2 players.

### RiS

Nov – Dec 2006

Designed a language called RiS and developed an interpreter for it in Lisp. The language looked a lot like JavaScript. It had support for arrays, user defined functions, self-modifying code, dynamic binding of variables, and much more. The only thing it lacked was speed.

### Räkna med pengar

Sept – Dec 2006

Using VBA, integrated the stock exchange program Reuters, into a sheet in Excel which showed all your portfolio's shares, the covariance between them, current values, hedge parameters, and how to buy and sell to reach minimal risk. Everything updated in real time with data from the stock markets of the world.

### CB Skating

Jan – Apr 2005

During a project during the last year of upper secondary school, a skateboard platform game for DOS was developed in C++ and x86 assembler.

### Ms Windows applications

Aug 2004 – 2005

Developed small Windows applications in C++. A Solitaire clone, a Calculator, and Yatzy.

### 68k Assembler

2003

Wrote some smaller programs in 68k-assembler for a TI89 calculator.

### Tjockemon

Summer 2000

Wrote a Pacman clone in QuickBASIC when 13 years old. The monsters had a well-working pathfinding algorithm.