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SPOKEN LANGUAGES	Swedish, English	
EDUCATION	MSc, Department of Computing Science, Umeå university, 2013	
CERTIFICATIONS	Sun Certified Java Programmer (SCJP), 2011	
PROFESSIONAL EXPERIENCE	<p><b>Intinor AB</b>, Umeå, Sweden – <a href="http://www.intinor.se/">http://www.intinor.se/</a> <b>2015</b> Backend work in C++ with xerces-c and cairo.</p> <p><b>UMIT Research Lab</b>, Umeå, Sweden – <a href="http://www.org.umu.se/umit/">http://www.org.umu.se/umit/</a> <b>2014</b> Prototype work involving the FMI standard.</p> <p><b>CodeMill AB</b>, Umeå, Sweden – <a href="http://www.codemill.se/">http://www.codemill.se/</a> <b>2008 – 2015</b> Notable clients and projects:</p> <p><b>Vidispine</b> – <a href="http://www.vidispine.com">http://www.vidispine.com</a> <b>2010 – 2015</b> A toolbox for building Media Asset Management systems. Includes two major parts, both of which I've been involved with:</p> <ul style="list-style-type: none"> <li>• Audio/video transcoder, remuxer with REST interface (C/C++, main developer/video guru)</li> <li>• Middleware (Java EE, minor work)</li> </ul> <p><b>RSA</b> – <a href="http://www.rsabiomedical.se/">http://www.rsabiomedical.se/</a> <b>2015</b> Work on mdesk, a tool for doing orthopedic preoperative planning and templating. C++.</p> <p><b>Umbio</b> – <a href="http://www.umbio.com/">http://www.umbio.com/</a> <b>2013 – 2014</b> Serial servo motor control in Java, porting C# code to Java.</p> <p><b>BBC</b> – <a href="http://www.bbc.co.uk">http://www.bbc.co.uk</a> <b>2011 – 2012</b> The Digital Media Initiative project via Vidispine. Mostly C.</p> <p><b>Cantemo</b> – <a href="http://www.cantemo.com/">http://www.cantemo.com/</a> <b>2012</b> Work on plugins for Cantemo's Portal (a Django-based web front-end for Vidispine). Sub-clients we've been involved with:</p> <ul style="list-style-type: none"> <li>• Meta Media Creative Technologies – <a href="http://www.mmct.com/">http://www.mmct.com/</a></li> <li>• 10dot1 – <a href="http://www.10dot1.co.uk/">http://www.10dot1.co.uk/</a></li> </ul> <p><b>Dokufant</b> – <a href="http://www.dokufant.se/">http://www.dokufant.se/</a> <b>2012</b> Video transcoding backend.</p> <p><b>Playing for Change</b> – <a href="http://www.playingforchange.com/">http://www.playingforchange.com/</a> <b>2012</b> Backend work in Python (Django).</p> <p><b>TableDrum</b> – <a href="http://www.tabledrum.com/">http://www.tabledrum.com/</a> <b>2008 – 2009</b> An iPhone application which does realtime audio classification to figure out which drum sounds to play based on how the user drums on nearby surfaces. Part of my master's thesis.</p>	
HARDWARE AND SOFTWARE SKILLS	Higher-level languages: <ul style="list-style-type: none"> <li>• C (pref. C99), C++, Java, Python, bash, GNU make, SQL, Matlab/Octave</li> </ul> Instruction set familiarity: <ul style="list-style-type: none"> <li>• x86, AVR, 6502</li> </ul>	

Version control systems:

- git, SVN

Video editing:

- kdenlive, Final Cut Pro 7, Final Cut Pro X, Avid Media Composer 5

Operating Systems:

- Windows, Mac OS X, Debian (including Ubuntu and other variants)

Continuous integration:

- Jenkins (formerly known as Hudson)

Other:

- $\LaTeX$ , LyX, LibreOffice

FREE SOFTWARE  
PROJECTS

### **FFmpeg/Libav**

**2010 – present**

Notable contributions:

- LXF demuxer (maintainer)
- OPAtom support in MXF demuxer (maintainer)
- Various fixes and features for the AIFF, WAVE, MOV, GXF and FLIC demuxers
- Several formats made playable on stdin

### **MXFLib**

**2010 – 2012**

### **LibMXF**

**2011 – 2012**

Projects of my own creation:

**James** – <https://github.com/Tjoppen/james>

**2010 – 2012**

An XML schema compiler for C++

**Pyjames** – <https://github.com/Tjoppen/pyjames>

**2011 – 2012**

Like James, but outputs Python code instead of C++

HOBBY  
ELECTRONICS

Various successful projects:

- NES Flash ROM cartridge
- Battery powered capacitive touch talking alarm clock
- Mechanical switch controlling three 12 V lights, also hooked up serially to an IRC bot
- Tearing down and repaired an old analog oscilloscope
- Hand cranked MP3 player with supercapacitor energy storage

Ongoing projects:

- Repairing a MARS: God of War pinball machine
- A simple probe that might get to hitch a ride to the moon thanks to Part-Time Scientists, a team participating in Google's Lunar XPrize. More information at <http://scube.se>

Familiar subjects:

- Linear and switching regulators
- EMC
- Microcontrollers (PIC, AVR)
- Two-layer low-frequency PCB design (Eagle) and etching
- Reflow soldering
- RF, to some extent

OTHER HOBBY  
PROJECTS

### **Amateur radio**

**2015 – present**

I'm involved in the amateur radio scene under the callsign SA2TMS. Interests center around digital modes and low power (QRP), or even very low power (QRPP).

**Umeå Hackerspace** – <https://www.umeahackerspace.se/> **2013 – present**  
Active since the middle of 2013, mostly in charge of maintaining order in the electronics lab. Served as vice chairman in 2014.

**Demoscene** **2010 – present**  
Production for PC, Atari 2600 and NES, including two games and several demos (one of which won Revision 2012).

**Homebrewing** **2007 – present**  
I brew beer with a few friends every now and then, mostly ale. It usually ends up quite tasty!

**Battlegrounds 2** – <http://www.bgmod.com/> **2007 – 2012**  
A total conversion mod for Half-Life 2. Mostly coding, a little bit of mapping and animating.