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CARL IGELSTRÖM
**MSc. Electrical Engineering &
Computer Science**

https://www.carlw.se
https://github.com/ugglr

CORE COMPETENCES & SKILLS

JAVA developer with advanced Courses in Algorithms and Data Structures, self-taught web developer: HTML, CSS and JavaScript; MERN Stack. Refer to my GitHub for projects.

- **Front-End:** HTML5; CSS3; JavaScript: Core, ES6, Bootstrap, React.js.
- **Back-End:** JAVA (v.8/9), JavaScript: Node.js; Spring Boot; Gradle. Python: Flask, Django.
- **Electronics:** Experienced Mixed Analog & Digital HW Designer. Pads Vx; Windchill (PLM); LabView;
- **SoC Development:** VHDL; Verilog; Cadence (Virtuoso, ADE L, Layout XL); Xilinx FPGA; Questasim.
- **Other:** Git/Version Control; IDE (Eclipse, VS Code); MATLAB; MS Teams; Slack; Scrum.

PROFESSIONAL EXPERIENCE

Exp. Electronics Engineer **Axis Communications, Lund SWE** **Sep. 2015 – Jan. 2019**
- PCB Electronics; Analogue/Digital mixed Schematic Designer, New Product innovation. (PADS Vx)
- Verification of signal integrity and system robustness, laboratory testing (QA, Thermal eval. Etc.)
- Electromagnetic compatibility (EMC) testing and Certification; CE, UL, FCC, TUV, KCC, Rolling Stock.
- Agile hardware testing workflow expert; Kanban, Scrum, Jira, MS Teams Tech. support.
- Product Lifecycle Management (PLM: Windchill) Super User, future feature group & Tech. support.

Software Engineer Intern **Wayne, GE Oil & Gas, Malmö SWE** **Jun. 2014 – Sep. 2014**
- Developed automated production HW tests using LabView, Machine Vision and Machine Learning.
- Executed prototype plans for automated sensor calibration rig, Bench and equipment sourcing.

SW & HW Engineer Intern **Electrolux, Shanghai CN** **Jun. 2012 – Aug. 2012**
- Product prototype development; Embedded Linux programming & Hardware implementation.
- UX/UI Study: Design of Android application touch interfaces on small home appliances.

EDUCATION

MSc. Electrical Engineering **Lund University. Lund, SWE** **Fall 2009 – Fall 2015**
- **Specialization:** Design of Processors and Digital Systems (SoC); China Profile.
- **Graduate Coursework:** Structured VLSI Design on FPGA (VHDL+Xilinx), Digital IC-Design (CMOS), DSP-Design, MEMS Fabrication on Silicon, Integrated AD/DA converters, Processes in Large Scale Software Development, Advanced Analogue Amplifiers, Java: Advanced Course.
- **Undergraduate Coursework:** Analogue and Digital Electronics, Mathematics, Physics, Numerical Analysis, Statistics, Databases & Algorithms in Java, Digital Signal Processing, Java Fundamentals.
- **Exchange:** Zhejiang University, Hangzhou China, half year special program for civil engineers.

Mandarin & Chinese Culture **Zhejiang University. HZ, CN** **Aug. 2012 – Aug. 2013**
- Chinese Language and culture exchange. HSK 4 equivalent.

PROJECTS

- **Axis P8815-2:** Machine Vision & Deep Learning Hardware. Development Leader/Tech. Lead. Analogue/Digital HW Designer. Several new solutions implemented, full product responsibility.
- **Axis P7304:** Analog to Digital Video Encoder. HW Designer, Component Sourcing, Testing, EMC.
- **Axis Q1659:** *Enterprise 20Mp Network camera.* HW Testing and QA/EMC. Co-Dev. Canon Japan
- **Axis Q3708-PVE:** Enterprise Quad HD 180° network camera. HW Testing and QA/EMC.
- **Master Thesis:** HDMI Signal Tapping and Digital Encoding over TCP/IP. Successful prototype.

Languages: English: Full Professional Proficiency. Chinese: Professional Proficiency. Swedish: Native.