Curriculum Vitae
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Employment

In reverse chronological order:

[$2006_{.11}$ – now] Currently employed at **Alten**, a leading service provider in the field of technical consultancy and engineering.

[$2020_{.03}$ – now] Stationed at **SKF**. Maintaining SimpoExpert, a simulation tool for bearing applications, developed in **C++**. Also responsible for the **DevOps** environment, which builds and tests for both **Linux** and **Windows**.

[$2019_{.07} - 2020_{.02}$] **ASML metrology**: implemented recipe parser changes, validation and verification, required for the higher order intra-field overlay model in **C++**. After calibration of lens and reticle heating, residual heating effects remain. Higher order intra-field overlay models are intended to compensate for such wafer-to-wafer and across-wafer residual heating. The recipe allows customization of these compensations.

[$2016_{.07}$ – $2019_{.06}$] **Philips Healthtech**: designed, implemented and reaching end-off-development for the beam limiter for which I designed the **kinematics** for patient oriented movements in an **Xray Image Guided Therapy** system. Continued with the development of a kinematics library in **C++** based on **quaternions**.

[$2015_{.01} - 2016_{.06}$] **Philips Lighting** in the LightVibes venture. Design of the epics: ingestion, data management, logging and playout in **C++**. Became architect, being responsible for writing down the (future) architecture, system test strategy and user manual. Traveled to California, England and Germany for installations.

[$2014_{.05} - 2014_{.12}$] Defined the architecture of a Hiccup analysis tool for **ASML**. The Hiccup analysis tool is able to trap system (HW & SW) hiccups on production scanners in a non-intrusive way.

[$2013_{.01} - 2014_{.04}$] **ABB Epyon Power**, a startup company specialized in fast chargers for **electrical vehicles**. Designed and deployed board discovery, and SW download. ABB chargers have a modular architecture with different hardware configurations. All SW (including bootloaders) can be updated remotely over internet.

[$2012_{.08} - 2012_{.12}$] **CCV**, one of the larger payment terminal providers in Europe. Designed and developed the secure module. Created a plug-in platform (in the secure module) to allow certification and signing of individual modules. Trained developers in **C++**.

[$2010_{.12}$ – $2012_{.08}$] **Assembléon**, a machine factory for picking and placing SMD[1] components on PCBs[2]. Participated in the design of a multi-head implementation of the pick process. Profiled the **C++** implementation with Microsoft's profiler to find SW processing in the critical production path, and changed the design to minimize such production delays.

[$2010_{.08} - 2010_{.12}$] **BEST sorting Belgium**, a high-tech machine factory for real-time sorting applications with various vision technologies. Chaired the architectural team for a uniform software platform. Did requirements elicitation using use cases, developed a top-level design and broke the system down into work packages.

[$2008_{.12} - 2010_{.07}$] **CCV**: implementing a non-blocking secure transaction link for outdoor unmanned PIN-pads that have a direct link with the transaction server. Also implemented remote SW download.

[$2006_{.12}$ – $2008_{.12}$] **ASML**: designed the host-worker communication of the connectivity layer for a real-time motion platform in the NXT wafer scanner project. This platform is intended to control wafer stage and reticle stage at a sample frequency of 10 kHz. Researched an alternative approach: using **FPGA**s[3] instead of general purpose microprocessors.

[$2006_{.11}$] Started at **Alten**.

[1] Surface mounted device
[2] Printed circuit board
[3] Field programmable gate array

[$2001._{05} - 2006._{10}$] **one-man enterprise kubicas**: participated in a metering and reservoir engineering project for the F-16 platform. My customer was Honeywell and I cooperated with Emerson, Instromet and Wintershall. Multiple software modules were designed, implemented, documented and delivered on June 2005.

[$2001._{05} - 2006._{10}$] **Philips**

[$2003._{11} - 2006._{10}$] **ICE**[4] of **Philips Semiconductors** developing the first digital TV. Stayed in Taiwan, Taipei for six months until December 2005. Was involved in sales support: giving demos of our TV810/TV510 digital TV ATSC solution in China, Korea, Singapore and Taiwan. Gradually, tasks shifted from sales towards customer training, digital TV laboratory set-up, support engineer training and design-in.

[$2001._{05} - 2003._{11}$] **PDSL**[5], joining the DVD+RW recorder team. Designed and developed the audio and video output module, the on-screen display module and the memory manager for streaming buffers. Used C on the MIPS platform for the modules, **C++** for the tooling and **UML** for design.

[$2001._{05}$] Started at **Philips** and started my one-man enterprise kubicas.

[$1997._{04} - 2001._{04}$] **Polar Systems** as lead-engineer. Designed and developed a fiscal metering system for the NAM[6] offshore platform D15-FA, and for the Wintershall platforms A6-A and L8-P4. The software comprised fiscal metering with orifice and Coriolis, wet-gas venturi metering for reallocation, platform mass balance, flash calculations and an expert system for reservoir engineering. Upgraded the fiscal metering systems for the underground gas storage plants in Norg, Grijpskerk (both of the NAM) and Alkmaar (Amoco). Developed TCP-IP driver for OLNG[7] and commissioned metering and analyzer management software in Oman.

[$1994._{10} - 1997._{03}$] **ASM** as a Software Engineer. Stayed in Japan (Tama-shi, Hashimoto, Nagaoka and Kumamoto) for 9 month for SW development and customer support for an ultra high vacuum cluster with a hemo-spherical grain reactor. Worked in cleanrooms in Japan and Scotland of NEC and at the Fraunhofer Institute in Erlangen, Germany. Worked on the development of the MESC[8] cluster tool controller. Attended the seminar Software Development using Real-time Performance Software Products in San Francisco.

Job objective

Interested in challenging multi-disciplinary projects in a high technical environment. Wishes to carry technical responsibility, including the coaching of project-engineers.

Education

In reverse chronological order:

[$2001._{08} - 2002._{07}$] Did the **Embedded Systems Architecture** training at the EESI[9].

[$1988._{09} - 1994._{04}$] Studied **Electrical engineering**, direction information engineering, at the Eindhoven University of Technology. Graduated with **mark 9** for the thesis on an **object-oriented** design for control of Flexible Manufacturing Systems and on its implementation for a flexible assembly and welding cell in **C++**.

Two training periods: "force measurement with strain gages" and "**neural net** based scheduling in **C++**".

[$1981._{09} - 1988._{06}$] VWO[10] at the Cobbenhagen College in Tilburg.

Miscellaneous

Regularly give training in **C++**, both beginners and advanced, in house, at customers or at the HTI[11]. I'm a passionate follower of developments of the **C++ standard**.

Designed and implemented light, sound, recording and stage information system for the opera "Die Zauberflöte" by W.A. Mozart at the Gasthuiskapel in Zaltbommel, a location without theater facilities.

Hobbies: Caribbean dances, particularly Cuban Salsa.

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[4] Innovation centre Eindhoven
[5] Philips digital systems laboratories
[6] Nederlande aardolie maatschappij = The Dutch national exploration company
[7] Oman liquefied natural gas
[8] Modular equipment standard committee
[9] Eindhoven embedded systems institute
[10] Voorbereidend wetenschappelijk onderwijs = pre-university education
[11] High tech institute