Finn Hausager: CV

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Profile:

Problem solving using electronic circuits is my passion and drive, latest as an HW Specialist doing everything from MCU, baseband, PWR, RF and Antenna Design building both antenna simulations, prototypes, and test - and as a top-level system designer and feature lead for an RF measurement internally in the Intel LTE chipset. This gave me feature ownership covering system design, SW specification and verification.

I enjoy working in all design stages from idea, specifications, schematic, layouts, prototype building and test.

I am a very flexible and dedicated person, eager to learn new stuff without being picky about design, test or documentational tasks and is happy to interact with colleagues.

I enjoy working in teams but am also happy to work on my own for longer periods.

My professional experience covers:
- System Specification, Design, Integration and Verification.
- Base-band HW and RF Design, Antennas, Antenna Tuning, Component Sourcing and Layout.
- Design for EMC, Signal Integrity and PWR Delivery Systems.
- Digital Signal Processing,
- Test Specification.
- SW Design for Test.
- Production Engineering Training.
- Patent Writing.
- Testing.

You can have me do anything - I really can make anything work if at all possible.

My broad spectrum of experience based on a long list of successful project executions makes me an excellent designer using various simulation and design tools, and debugging or advisor, however - all kinds of electronic development processes have my interest.

Work Experience:

2020 (October) – current: GomSpace.
- Deployable VHF Antenna 8 Rods Array for a 6U Nano Satellite.
- Deployable VHF Antenna Quadrifilar Helix for a 2x2 face Nano Satellite.
- High PWR Stepper Motor Controlled Butterfly VHF Antenna Tuner for Space.
- S-band patch antenna, several X-band patch antennas, K-band antenna PCB cavity exited antenna, and a Ka-band waveguide array antenna.
- Solar cells – and more space stuff.

2020 (August) – 2020 (September): WasteHero, Senior HW Engineer.
- Complete, Antenna Design for LTE IOT device including 2 x Antenna Tuner.

2018 (October) – 2020 (February): Synergile ApS, Senior Engineer, EMC and Antenna Specialist.
- 2 successful wide band antenna designs for LTE for small IOT devices using antenna tuning.
- An autonomous signal reflection measurement system (VSWR).
- A BT interface in an industrial component without traditional antenna.
- 2 antenna designs for traffic warning system in 900 MHz ISM band.
- Successful debugging costumer RF HW.

2013 – 2018 (September): Intel, Senior RF Engineer, Member of Technical Staff.
- Feature lead for Impedance Measurement in the Intel LTE Modem. HW blocks of RF engine, SW specification and system verification. Successfully delivered thru 3 chip generations.
- Successfully created a fully automated VSWR Feature Test Script for Regression Test controlling Modem, Relays, Network Analyzer and Impedance Tuner.
- High level system design for closed loop antenna tuning, based on impedance measurement of modulated signaling. Successful model including tunable antenna design, verified using Matlab Test Script.
- Successful HW design for Mobile Test Platform "Edison Phone", both doing HW design and lay-out.
- Complete design and production of several test components including IR interface and small micro-processors, doing HW and coding in C.
- Schematic and layout reviewer for lead costumer.
- Patent writing – co-inventor on two filed patents and primary writer on several invention reports.
- References are given upon request.

2009 – 2012: Molex Interconnect, Senior RF Design Engineer.
- Several Antenna Designs for Mobile Devices, FM, NFC, A4WP, GSM, LTE, MiMo.
- Successful Design of an "of the shelf" antenna for ISM frequencies near 900 MHz.
- EMC, SI and PWR Delivery Expert Consultant.

2006 – 2009: Motorola, Principal Staff Engineer – EMC/Antenna.
- Responsible for EMC Architecture, Aalborg Site Signal Integrity Representative. (Connectors, PCB Routing Principles, Power Delivery Design).
- Successful Design of FM radio Antenna and Sensitivity Test Setup – 100 MHz antenna based on wired headset.
- Self-Interference Expert.
- 6 Sigma tools like DOE for identifying most significant failure course and identifying solutions.
- Participating in HW System Design.
- Participating in Mechanical System Design.
- Participating in the Antenna Design.
- Securing necessary filtering and ESD protection are in and in the right places.
- EMC (ESD, Emission, and EM Susceptibility).
- GSM, UMTS, BT, WLAN sensitivity test (self-interference testing).

2002 – 2006: Siemens Mobile Devices and BenQ, Senior Engineer – EMC/Antenna.
- Responsible for EMC Architecture.
- Self-Interference Expert.
- Participating in HW System Design.
- Participating in Mechanical System Design.
- Participating in the Antenna Design.

- Securing necessary filtering and ESD protection are in and in the right places.
- EMC (ESD, Emission, and EM Susceptibility).
- GSM, UMTS, BT, WLAN sensitivity test (self-interference testing).

2001 – 2002: Shima Communications, Baseband Engineer.
- Working with Analog Devices GSM, GPRS Chipset. HW design and test.

1989 – 2001: LASAT Communications and EICON Networks, Senior Engineer.
- Wired Modems, ISDN, Ethernet Routers.
- RS232, ISA Bus, PCMCIA, USB and POTS-Interface.
- HW design, layout and test.
- SW (assembler and C-programming).

Tools Expertise:
- Agilent ADS — Expert.
- CST Micro Wave Studio — Expert.
- Matlab — Expert.
- Ansys Electronic Desktop — Expert.
- Sonnet — Expert.
- QUCS — Expert.
- QUCS Studio — Expert.
- OpenEMS — Expert.
- Octave. — Expert.
- KiCAD — Expert.
- Cadence Allegro — Some experience, but not expert.
- OrCAD — Some experience, but not expert.
- Altium — Expert.
- Eagle — Expert.
- Mentor Graphics — Some experience.
- SolidWorks — Some Experience building and interfacing to Mechanic Dep.
- FreeCAD — Beginning.

Communication Skills:
- Danish – native. Understands Norwegian and Swedish very well.
- English – fluent, skilled documentation writer.
- German – tourist.
- French – basic.

Courses of Relevance:
- 2018 Anticorruption, Course Successful 97 05-FEB-2018 Web Based Training (WBT).
- 2018 Code of Conduct Certification, Certification Acquired 15-JAN-2018.
- 2018 Code of Conduct Training, Course Successful 98 15-JAN-2018 Web Based Training (WBT).
- 2018 Information Security Awareness, Certification Acquired 05-FEB-2018.
- 2018 Information Security Awareness, Course Successful 90 05-FEB-2018 Web Based Training (WBT).
- Anticorruption Certification 2018, Certification Acquired 05-FEB-2018.
- Intro to Software Security, Course Successful 80 08-DEC-2017 Web Based Training (WBT).
- IPCP Awareness Certification, Certification Acquired 25-JAN-2018.
- IPCP Awareness training, Course Successful 0 25-JAN-2018 Web Based Training (WBT).
- Keep It Inside Your Role in Protecting Confidential Intel Information, Certification Acquired 06-FEB-2018.
- Keep It Inside Your Role in Protecting Confidential Intel Information, Course Successful 100 06-FEB-2018 Web Based Training (WBT).
- OptiCM6 hands on Training, Course Successful 100 09-NOV-2017 Web Based Training (WBT).
- Signal Integrity using Cadence – fall 2008.
- "Speeding Edge" Signal Integrity course led by Lee Ritchey in April 2008.
- Several 6-sigma courses within the Motorola University, Design of Experiments, Basic Statistics, Monte Carlo Analysis, 2006-2008.
- "Uncertainty Measurements and Statistical Methods" September 2006.
- "Presentation Techniques" course December 2005.

- "Antenna Course" at Aalborg University March 2005.
- "Written English" in November 2004.
- CEI Course: #044579i "Wideband CDMA for UMTS/UTRA: The Physical Layer for Personal, Indoor, Cellular, Land and Satellite Mobile Communications, and Wireless LAN" November 2004.
- HALT/HASS & EMC (accelerated life test at Delta Industries September 2004.
- "UMTS – 3rd Generation's System" course August 2004.
- "Iværksætterkursus" spring 2001 and 2009 – a course for people thinking of starting own business.
- EMC of Printed Wiring Boards April 1998.
- P-Spice course at Nordcad Systems April 1997.

Experience in Culture:
- Chinese co developers and subcontractors – production during Intel, Molex, Shima and Motorola employment.
- India co developers (SW) during Intel employment.
- Thailand and French subcontractors – production during LASAT/Eicon employment.
- German colleagues during Intel, Motorola and Siemens employment.
- American colleagues during Molex, Motorola and Intel employment.

Spare time elected of trust for:
- Chairman for LASAT "Virksomhedsgruppe" 1992-1994.
- Member of the board of Vodskov Idrætsforening Fodboldafdelingen 1998-2000 (responsible for the senior department).
- Chairman of the Aalborg Kajakklub "Begynder Udvalg" March 2002-February 2004.
- Member of the board of the local Kindergarten (Stampe, Aalborg) 2007-2008.
- Member of the board of the local fundamental school (Løvvangskolen, Nørresundby) 2012-2017.
- Member of the board of the local fundamental school (Vester Mariendal Skole, Aalborg) 2017 -2018.

Private Education:
- 30 hours instruction in 1st Aid, Danish Red Cross December 1992.
- 12 hours instruction in 1st Aid, "Beredskabs Forbundet" November 2001.
- Yearly updated 1st aid and firefighting, "Beredskabs Forbundet" fall 2015. Member of the Intel Aalborg Emergency Response Team.
- Certificate of proficiency in motor operation (for yachtsmen) since 1992.
- Certificate of competency as Yacht Master, 3rd Class since 1992.
- "Yachtskippereksamen af 1. grad" The Yacht Master's 1st Class Examination April 1997.
- (To get the certificate for 1st Class Yachts Master I need ½ year of sailing time as a 2nd or 3rd degree Yacht Master).
- Certificate for VHF/DSC in GMDSS SRC-1628/98 Maritime Radio since November 1998.
- Drivers License Class B since 1986.
- DKF Sea Kayak Instructor EPP1 (Sea kayak) since 1999.
- DKF Instructor EPP2 (Nordic + flat water) since 2002.
- Hunting license since 1993.
- License to use rifle for hunting since 1997.

Private Status:
Date of birth was December 24th 1963, Lindholm, Denmark.
Married to Dorthe Lavdal Kjaer and have 3 children: Lykke (14), Ole (8) and Anni (6).

Private Interests:
- Fishing, Hunting, Kayaking.
- Cycling – I use my bike to work as much as possible.
- Gardening.

With the great wish for us to come to an agreement - Yours truly,

Finn Hausager, M.Sc.E.E.