



JENS SKOVGAARD SVANE

Freelance ASIC / FPGA / FW / Emulation Engineer

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QUICK FACTS

32

Years
Old

1

Honor

4

Different
Locations

9

Years of work
experience

OBJECTIVE

I am offering my services based on having worked almost a decade in the semiconductor industry filling various positions ranging from digital frontend design, test automation, ASIC emulation and embedded firmware design. Strong sides include excellent debugging skills and ability to get complex systems working.

EMPLOYMENT

Founder & Consultant at Bit Better Technology ApS

Frederiksberg, Hovedstaden, Denmark

Next generation low power radio SoC

- Emulated ASIC design on FPGA and performed bring-up together with customer.
- Established working development platform and demonstrated radio link.

<http://bitbetter.technology>

April 2015 – Present

Embedded Software Engineer at Texas Instruments Denmark

Kongens Lyngby, Denmark

TI CC26xx – Multi-standard low power RF transceiver

- Developed, tested and debugged TI-RTOS drivers for embedded ARM CM3 CPU.

=> UART, SPI, I2C, DMA, Power Management.

<http://www.ti.com/product/cc2650>

August 2013 – December 2014

Emulation Engineer at Texas Instruments Denmark

Kongens Lyngby, Hovedstaden, Denmark

TI CC26xx – Multi-standard low power RF transceiver

- Maintained emulation effort while supporting various teams:

=> Digital Validation, Firmware ROM and drivers, Stack Software and tools.

<http://www.ti.com/product/cc2650>

April 2012 – August 2013

Emulation Engineer at Texas Instruments Inc

San Diego, California, United States

TI CC26xx – Multi-standard low power RF transceiver

- Joined the San Diego LPRF SW team for a 5 month period.

- Emulated full CC2650 device on a low cost off-the-shelf Xilinx FPGA (Virtex-6) kit.

- Established a full development platform based on the FPGA kit with:

=> Debuggers, sniffers and tracers.

- Demonstrated Bluetooth Low Energy stack running on the FPGA together with TI SMTS.

- Emulation effort was awarded with the WBU ACE award.

<http://www.ti.com/product/cc2650>

October 2011 – April 2012

Lead Test Engineer at Texas Instruments Denmark

Kongens Lyngby, Hovedstaden, Denmark

TI CC85xx – Wireless audio transceiver

- Designed and implemented fully automated Coexistence and Robustness test suite.

- Designed and implemented fully automated System test suite.

- Implemented various FW drivers and debugged several FW issues.

- Debugged several PCB level issues that affected audio quality.

- Performed APLL characterization together with TI Fellow.

<http://www.ti.com/product/cc8520>

February 2009 – October 2011

Digital Design Engineer at Texas Instruments Denmark

Kongens Lyngby, Denmark

TI TAS4110 – Asynchronous sample rate converter

- Performed all SOC integration and top level DV.
- Designed, implemented and verified six peripheral IPs:
=> Arbitrary Pulse Generator, GPIO, GPTimer, I2S slave/master, I2C-DMA, PWM
- Responsible for FPGA (Virtex-4) synthesis and initial chip synthesis.
- Established C regression suite for custom CPU.
- Assisted in debugging C compiler and RTL for custom CPU.

<http://www.ti.com>

February 2007 – February 2009

Graduate Internship at Texas Instruments Inc

Internship via dual-degree program between Texas Tech

University and Technical University of Denmark. Wrote master thesis titled: SoC design for an audio system.

<http://www.ti.com>

August 2006 – December 2006

The purpose of this project was to investigate the implications of converting a custom point-to-point communication architecture, of an audio PWM controller, into a standardized bus-based communication architecture. Early design space exploration was accomplished through the development of a pin and cycle accurate transaction-level model. Simulations on this model provided the data needed for the evaluation. A set of performance parameters and test benches were defined, in order to enable a quick and reliable evaluation of the proposed architectures.

EDUCATION

Texas Tech University

Lubbock, Texas, United States

MSEE Digital design

January 2006 – January 2007

Danmarks Tekniske Universitet

Kongens Lyngby, Denmark

MSEE Digital design

January 2001 – January 2007

HONORS

Texas Instruments ACE Award

October 2012

- The Technical Achievement-Creativity-Excellence Award, or ACE award, is a recognition program within Embedded Processing that rewards outstanding technical achievements critical to creating and/or delivering winning solutions to our customer.
- The award is given twice a year to individuals or small teams who have been nominated by leadership or their peers for projects and innovations that show proven results in a timely manner.
- Winning individuals and/or team are chosen by their peers within Embedded Processing
- The ACE award is intended as a frequent and specific way to recognize technical achievements. The award is given out twice a year, and there are usually numerous recipients.

LANGUAGES

Danish



English



SKILLS

JOB-RELATED



Digital IC Design, ASIC Prototyping on FPGA



Software Development, Test Automation

TRANSFERABLE

RTL Design/Verification, Hardware/Software Debugging, Functional Validation, Embedded Systems, Logic Synthesis