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[github](#)

[slideshare](#)

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Goal: leverage advanced automotive technologies to minimize environmental impact and maximize public safety.

Summary: automotive industry developer and Linux hardware-adaptation engineer with device-physics background.

Professional interests: Automotive systems using Linux and RTOS at both systems programming and kernel level. Hardware adaptation for ARM. Automation and image analysis via C and Matlab. Virtualization in embedded. git and systemd.

Full-time employment:

2012-present: Automotive software engineer at Mentor Embedded Software Division

Linux device driver creation for automotive projects based on Freescale i.MX6 platform. Related work on fastboot, [systemd](#), and gstreamer. On-site at customer location in Germany for 6 months.

2010-2011: MeeGo Technical Consultant, Nokia Mobility Solutions, Sunnyvale CA

Hardware adaptation of MeeGo-IVI to Atom and OMAP4 reference hardware.

2009-2010:

[Software Engineer at Stanford Linear Accelerator Center, Menlo Park CA](#)

Ported Linux kernel device driver and user application for [Fieldbus](#) sensors and gigabit cameras. Implemented power supply controller using [RTEMS](#) RTOS. Created multi-screen real-time display for Control Room using JQuery.

1997–2009: Advanced development engineer at Hewlett-Packard Labs, Palo Alto CA

1992–1997: Staff physicist at Lawrence Livermore National Lab, Livermore CA

1989–1992: National Research Council postdoctoral fellow at Naval Research Lab, Washington DC

20 years of designing and building automated test systems for advanced materials intended for printed electronics, magnetic and optical data storage and landmine detection. Expert-level usage of Matlab and DSOs.

2010-present: consulting activities

Advisor to automotive startups. Hardware adaptation and graphics stack for Open Mobile World Wide's Android virtualization product. Streaming video implementation for medical device using OMAP3 platform; real-time image recognition and pattern-match processing on a mobile handset video stream using Matlab and [vlfeat](#).

Formal Education:

1983–1988: PhD in device physics from **Massachusetts Institute of Technology (MIT)**.

1979–1982: Graduated cum laude with honors in physics from **Dartmouth College**.

Professional: Eight issued US patents and over thirty refereed technical publications. Leader of 1200-plus-member [Silicon Valley Automotive Open Source](#) group. Presenter at [Automotive Linux Summit](#), [Embedded Linux Conference](#), Maker Faire and many others.

Personal: US citizen. 5 years of service as MIT Club of Northern CA officer. Exclusive Linux user at home and work since 1999. [HackerDojo](#) founding member. [Cycling enthusiast](#) and beginning student of German.