

# Christopher Cardé

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## Objective:

A position leveraging my experience in the fields of automotive telematics, infotainment, and consumer electronics device interfacing or hybrid vehicle / alternative powertrain technology.

## Specific Skills

- Automotive telematics and infotainment architectures for OE and accessory product development
- SH4, HC12, STAR12, & PIC microcontroller architectures in C and assembly
- Digital logic hardware design, PCB layout, fabrication, assembly, and troubleshooting
- CAN networks, automotive controls, electronics and wiring
- Telematics systems and frameworks, OSGi, MOST
- Java, Servlets, Embedded Java + Linux
- Perl, CGI, C, C++, SQL, HTML
- TCP/IP networks, Cisco IOS, IP Mobility
- Digital system design, VHDL
- Linux, Windows 9x/2000/XP environments
- Dutch language skills

## Education

University of California at Davis, Electrical Engineering, M.S. received June. 2004

University of California at Davis, Computer Engineering, B.S. received Dec. 2000

## Publications

Design and Development of the 2003 UC Davis FutureTruck, SAE World Congress 2004

Design and Development of the 2002 UC Davis FutureTruck, SAE World Congress 2003, 2003-01-1263

Design and Development of the UC Davis FutureTruck, SAE World Congress 2002, SAE 2002-01-1210

## Relevant Experience

**Senior Systems Engineer**      DaimlerChrysler Research and Technology      **(2004 – Present)**

Led small project teams to successfully implement proof-of-concept and demonstration concept implementations for portable and in-vehicle demos for topics related to field of infotainment and audio and telematics vehicle architecture. Developed hardware, software, and drivers as necessary to complement available (off-the-shelf) components to realize shortest implementation time. Consulted with engineering and product strategy groups for multiple business units on technologies of immediate and future interest to the automotive industry. Drove technology transfer process and assisted in subsequent development efforts for research and demo concepts selected by business units for realization in company products.

**Graduate Researcher, Telematics Leader**      UC Davis HEV Center      **(2001 – 2004)**

Developed UC Davis Telematics Service Platform, a specification for OSGi bundles enabling development of vehicle-portable telematics applications. Implemented network-connected telematics systems on two vehicles participating in national collegiate FutureTruck competition with PC/104 x86 machines running Linux and embedded Java. Coordinated the implementation of distributed CAN control networks for several research and competition vehicles using combination of HC12/STAR12 and

MPC565 microcontrollers. Developed hardware abstraction drivers for several HC12 variants, including CAN firmware bootloader. Designed and implemented CAN protocol used in all research group vehicles, as well as Java CAN hardware abstraction layer and diagnostic toolkit. Implemented an XML compiler to automate integration of vehicle network. Developed and coordinated workshops to educate new undergraduate students on our control system technologies.

**Undergraduate Team Member** UC Davis FutureTruck (2000)

Participated in an intensive student effort to rebuild a Chevrolet Suburban into a Hybrid Electric Vehicle for FutureTruck 2000 competition. Contributed to system-level design and partitioning of vehicle's control network. Implemented hardware and software for several control modules on vehicle's CAN network. Wired, tested, and debugged UC Davis control system.

**Software Engineering Intern** Kana Communications (Summer 2000)

Developed a Java toolkit and UI wrapper to generate aggregate data on customer and potential customer server environments, enabling a better match of Kana's product line to customer requirements.

**System Admin / Computing Support** UC Davis / Anthropology (1996 - 1999)

Administered departmental Linux and HP-UX servers providing mission-critical network services (DHCP, DNS, HTTP, IMAP, SQL), oversaw graduate computing facilities running NT and Unix, and provided on-site support for faculty and staff workstations.

**Data Warehouse Intern** Sun Microsystems / I.R. (Summer 1999)

Contributed to development of a servlet-based operation management tool for Sun's computer systems data warehouse. Developed and implemented new features and queries to meet user demands. Built Perl scripts to assist with daily load operations.

**Web Engineering Intern** Sun Microsystems / JavaSoft (Summer 1998)

Assisted the team responsible for JavaSoft web infrastructure and product releases. Built CGI scripts to generate real-time graphical and tabular statistics to track product downloads. Implemented a secure web-based authentication and login system employing JavaCard technology. Researched Marimba Castanet technology as a delivery conduit for product shipments and updates.

**Documentation Webmaster Intern** Sun Microsystems / JavaSoft (Summer 1997)

Worked on a variety of projects involving Java, Perl, CGI, and straight HTML. Designed database-driven JavaSoft online job listings, wrote a CGI-based third-party Java ports database, and a Java web search applet.

**Unix System Administrator / Webmaster** University of Massachusetts (1995 - 1996)

Collaborated to build an Internet service for Massachusetts K12 educators and students. Performed system and user administration, provided technical support, and developed administrative tools and CGI scripts.

**Producer & Board of Directors** Amherst Community Television (1991 - 1996)

Directed and produced full-length and short programs as well as serving on the technical production crew for numerous others on a volunteer basis. Experience includes studio and field production, post-production, and 3-D modeling and animation. Served on the board of directors in 1995.

## Activities and Interests

- Private pilot
- Technician class amateur radio operator