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## INDUSTRIAL DESIGN & PRODUCTION

### OVERVIEW OF QUALIFICATIONS

- Inventive designer with proven skills in the design of mechanical devices, architectural marine and vehicular structures, electronic assemblies, operations procedures, database systems, and software programs.
- Diverse background in technologies ranging from heavy industry, architectural construction, digital design, electronic fabrication, manufacturing design, to communications media, ecosystems inventory and watershed restoration.
- Articulate communicator with demonstrated ability in technical writing, editing, tutoring, and web design, as well as facilitation of working meetings for designers and decision-makers.
- Educated in design and design theory, practiced in design methods for groups.

### DESIGNS and PRODUCTS: (-D&P)

- PCB designs, up to 18 layers. -D  
UltraCad Design Inc., Bellevue WA 1998
- FPGA computing development platform, modular. -D&P  
Gigaoperations Corp., Berkeley, CA 1991-1997
- Wood-fired, slope-loading, furnace for sauna and space heating -D&P  
Laughingwolf Design, Santa Rosa, CA 1994
- High fidelity color digital camera including a custom x-y microstage -D&P  
Array Technologies Inc., Oakland, CA 1987-1989
- Material requirements planning system (MRP) for electronic start-up -D&P  
Genigraphics GP, Berkeley, CA 1985
- 3CPU computer system for graphic artists, 3 pipelined 68020s -P  
Genigraphics GP, Berkeley, CA 1984-1986
- Gas chromatograph controller, digital with A/D sampling -D&P  
Small Systems Co., SF, CA 1983
- Serial port drivers for custom S100 computer, 8 port card. -D&P  
Small Systems Co., SF, CA 1982
- Watershed survey and restoration for salmon habitat -D&P  
Mattole Watershed Salmon Support Group/Coastal Headwaters, White Thorn, CA 1981
- 16' Pinwheel gazebo, designed and built in 5 days. -D&P  
Beverly Hills, CA 1980
- Fan-shaped passive solar home for Davis, California -D  
Design exercise, not built. 1978
- Community center, with passive solar features -D&P  
Crossroads Community "The Farm", SF, CA. 1977-1978
- Video documentary on forestry and land use, "The Next 200 Years?" -D&P  
Video Circle, San Francisco, CA 1975-1976
- Residential and commercial remodels, general contractor, carpenter -P  
San Francisco, CA 1975-1976

**DESIGNS and PRODUCTS (continued):**

- 400' steel barges for Alaska pipeline construction support, one per month. -*P*  
Bethlehem Shipyards, San Francisco, CA 1973-4
- 50' steel oil-spill skimmer/separator for SF Bay -*P*  
Pollution Recovery Systems, Richmond, CA 1972
- Rural home at Eldredge Creek. -*D&P*  
Greenfield Ranch, Calpella, CA 1971
- Industrial design studio in a Fruehauf trailer. -*D&P*  
Santa Rosa, CA 1993
- Welded steel frame workshop on a 5-ton truck -*D&P*  
Santa Rosa, CA 1996
- Epoxied mahogany mast support member for a Columbia 22 sailboat. -*D&P*  
Berkeley, CA 1997

**TECHNICAL CAPABILITIES :**

Structural, mechanical, and electronic product design, using CAD tools, as well as procedural design and technical documentation.

Steel fabrication, cutting, forming, welding, machining. Construction and repair of ships, fishing vessels, and yachts, in steel, wood, and fiberglass. Railroad car repair. Automotive mechanics.

Residential and commercial architectural design and construction. Passive solar design. Millman, rough and finish carpenter, plumber, electrician, general contractor, draftsman.

Skilled operation of forklifts, cranes, payloaders, heavy trucks, backhoes, roadgraders, bulldozers, tractors, and marine vessels; chainsaws, bandsaws, planers, joiners; welder & oxy-acet.; vert. mill & lathe. As shipwright, placed 15- to 65-ton assemblies to  $\pm 1/16$ " accuracy.

Manufacturing processes and jigs for assembly. Interferometrics. Piezo microstage design. Printed circuit board design, fabrication, assembly, inspection and testing. Chassis design.

Network and computer construction, configuration, and cabling. Software systems integration, systems administration, database programming, familiar with programming in assembly, Fortran, C, Pascal, Perl, Java, Unix shell scripting, Cisco router configuration, html coding.

Video production, all phases. Pre-press production, art, graphics, and photography.

Operations procedure and database design. MRP system design. Design meeting facilitation.

**EDUCATION:**

**Antioch College**, Yellow Springs, Ohio.

*B.A. Degree in Bioregional Design*

**North Seattle Community College**, Seattle, Washington.

*Network Administration: Java, Perl, Bash, Unix, Cisco.*

**SOFTWARE:**

See <http://www.smsys.com/resumes/software.html>

**PUBLISHED MATERIAL:**

*Choosing a Display Card for OS/2 and Linux*, Extended Attributes, the magazine of the OS/2 community, February 1999, Phoenix, AZ. <ftp://ftp.smsys.com/pub/vidchips.99>

*Forests are a Community*, Forest Trust Quarterly Report, October 1999, Santa Fe, NM.

See [www.theforesttrust.org](http://www.theforesttrust.org)

**INTERESTS:**

Sailing, flying, wilderness, architecture, design methods.