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Licenses: Professional Engineer, Electronics and Control Systems, Oregon, 7/1986

Certifications: Certified Software Development Professional (CSDP),
IEEE Computer Society, 6/2002
ESCO, Federal Clean Air Act, Sec. 609 (automotive refrigerants), 6/1998

Career Experience:

06/94 – now **Barrett & Associates Engineering**, Portland, OR
Consulting Engineer

- Developed specifications, instruments, and systems for various Clients; embedded systems, software and hardware design, simulation, prototyping.
- Designed SMT DC-DC converters for portable data acquisition systems.
- Debugged a synchronous AC-DC industrial power supply design.
- Designed and introduced into production a 16-channel, 400VAC, multiplexed I/O board for Omron™ PLCs.
- Designed and constructed a system to monitor and record temperatures and pressures in pneumatic tires; received US patent.
- Reviewed and proposed revisions to EPA test specifications for EnergyStar™ compliance of consumer products.
- Gathered and reported market data on AC-DC and DC-DC converter technologies, efficiencies, and expected market penetrations.
- Participated in industry-wide meetings and conferences concerning EnergyStar™ programs for CRT & LCD monitors.
- Authored four User Guides (programmer's manuals) for Sharp SMA ARM-based Systems-On-Chips (SOCs) and assoc. evaluation kits.

08/89 - 06/94 **Electronic Controls Design**, (ECD), Portland, OR
Project Engineer

- Implemented the acquisition and start-up of the company's first surface-mount (SMT) production line.
- Introduced more than 7 new products into production.
- Managed product development projects such as the Gold M.O.L.E.™ datalogger and the Gold M.O.L.E.™ UV Sensor.
- Designed software for industrial process-control products, including the Model 50 and L5000 dataloggers, the 9200, 9300, 9400, and 9600 Washers, and the 9700 Emulsonator™.
- Developed and met specifications, budgets, and schedules.
- Monitored competing organizations and products, and developed "Beta" site relationships for product testing.
- Authored and presented white papers at national conferences, and represented the organization at tradeshow.

03/85 - 07/89 **Tektronix Inc.**, Beaverton, OR
Electronic Engineer II and III

- Worked with discrete, hybrid, and integrated circuits operating from DC to GHz frequencies.
- Evaluated and tested designs for the company's flagship products: high-performance, wide-bandwidth, microprocessor-based oscilloscopes.
- Designed and characterized analog and digital circuitry for portable data acquisition systems marketed to the Automotive industry.
- Assisted new product introductions to manufacturing.
- Designed and implemented production test strategies.

10/82 - 03/85 **Leupold & Stevens Inc.**, Beaverton, OR
Electronic Design Engineer for Stevens Instrument Co.

- Designed analog data acquisition systems and digital interfaces.
- Designed & implemented PC-based data telemetry systems.
- Designed radio telemetry links, performed site-surveys.
- Tested & revised product designs to ensure FCC EMI compliance.

01/82 - 10/82 **Bonneville Power Administration**, Portland, OR
Electronic Engineer, GS9

- Designed and implemented digital & analog instrumentation.
- Calibrated and maintained Communications and Control systems.
- Calibrated and maintained Relaying & Metering equipment.

06/80 - 09/80 **Tektronix Inc.**, Beaverton, OR
Technical Writer

- Produced specifications, instruction, and service manuals for microprocessor development units (MDUs, emulators, "ICE").

03/74 - 09/79 **Byers Photo Equipment Mfg. Co**, Portland, OR
Assembly Department Supervisor, Field Applications Engineer,
Quality Assurance Inspector, Technical Publications Manager

- Supervised a Production department, with hire & fire authority.
- Established and staffed the AutoMounter™ production line.
- Performed Field installations and service.
- Established a Technical Publications department; designed, wrote, and produced the company's product manuals and service bulletins.
- Produced and conducted local and field technical training classes.

03/68 - 03/72 **US Military**, USAF, NORAD
E4, Supervisor, Computer Maintenance, Secret clearance,
Honorable Discharge.

Additional Information:

Education: BSEE (analog electronics), Portland State University, 12/1981
Ground CEM (digital electronics & radar), Keesler AFB, USAF, 1969

Continuing Education:

802.11 Wireless LAN Technology, IEEE, 4/2002
Microchip Masters' Conference, 7/2002
Total Quality Management, 1993-4
Post Graduate: Admitted, PSU MBA Program, 1/1993
Frontline Leadership, CCC, 6/1992
Transmission Lines and Wave Propagation, Tektronix, 11/87
Quick-Chip (ASIC) Design, Tektronix, 9/1987
C Language, Tektronix, 6/1987
Dale Carnegie Course, 2/1987
Project Management, Battelle, 1/1985
Digital Design, Tektronix, 9/1984

Patents: U.S. #6,025,777, "Off-The-Road Tire Temperature
and Pressure Monitoring System"

Publications: "LH79520 Microcontroller User's Guide", Sharp SMA, 3/2002
"The PC Answer Book", ISBN 0672302276, Prentice Hall, 6/1992

Memberships: IEEE (Senior Member), SAE Member, OEVA Member

Industry and Community Involvement:

Secretary, Oregon IEEE
Past Chair, Oregon IEEE Consultants' Network (ORCNET)
Past Webmaster, Oregon IEEE Consultants' Network
Past Treasurer, Oregon Service Technicians' Society (an SAE group)
Past Vice-Chair, Professional Engineers of Oregon (PEO)
Mentor, for the Oregon SAE's "A World In Motion" (AWIM) program
Proctor, for OSBEELS examinations
Neighborhood Council, Garden Home Bike Path project, Portland

Thank you for your attention.