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Key words: Experience, technical writing, electronics, photonics, optoelectronics, microprocessors, microcontrollers, semiconductors, dielectrics, design, engineering, analog, digital, test and measurement, calibration, instrumentation, reliability, CICS, programming languages, assembler, C/C++, Pascal, UNIX, CAD, EDA, ISO, troubleshooting, problem solving, imagination, resourcefulness, efficiency, human relations.

Professional Experience

2004 to present **Guibord Technical Writing Services, Inc.**

- Main Responsibilities:
Technical writing: Text and graphics, hardware and software documentation, instruction manuals (user's manual), scientific articles, application notes (technical notes), white papers, translations. Technical drawing, electrical and mechanical: Bloc diagrams, schematic capture of electronic circuits and mechanical equipment. Technical translation and proofreading. Management.
- Accomplishments:
Developed a very efficient proofreading method. Developed an MS-Word template for scientific papers. Developed a practical method that greatly simplifies the French grammar's *accord du participe passé*.

1995 to 2004 **Consultant to the electronics industry**

- Main Responsibilities:
Technical writing (service manuals, engineering reports). Technical support (troubleshooting of abnormal ICT data on an HP 3070/78). Recommendation and modification of test parameters. Modification of test-jigs. Modification of ICT and functional test software. Troubleshooting of Ethernet and SONET boards. Project management. Liaison with scientists, suppliers and manufacturers of electronic and mechanical components. Development of scientific apparatuses and engineering prototypes with applications in the fields of vacuum technology, energy conversion and transfer. Design, engineering, test and troubleshooting of electronic circuits' prototypes.
- Accomplishments:
Devised a practical system of calibration meeting ISO 9001 standards, without recourse to laboratory standards. Improved test software, resulting in an important reduction of test time. Invented a low cost surface finish that enables high field emission cathodes to emit at relatively low voltages. Developed a low cost Non-Dispersive Infra Red (NDIR) based sensor capable of measuring carbon monoxide with a resolution better than 1 ppm. Designed and engineered a low cost magnetometer.

2008 à maintenant **Laboratoire de recherche et de développement Guibord, inc.**

1978 to 1991 **Guibord Research and Development Laboratory Inc.**

- Main Responsibilities:
Design, engineering, test and troubleshooting of electronic circuits' prototypes. Design for EMC. Schematic capture of electronic and electrical circuits, PCB layout for high-speed circuits and subcontracting purposes. Reduction of manufacturing costs through design and engineering. Interface with PCB layout subcontractors, suppliers and manufacturers of electronic components. Development of engineering prototypes. Modification and documentation of engineering designs, preparation of test standards. Development of epoxy-resins for embedding of electronic circuits. Design, modification and production of printed circuits boards. Assembly of electronic products. Testing of products in environmental chambers. Repair and calibration of tests and measurement instrumentation.
- Accomplishments:
Engineered a high-reliability electronic circuit with a mean time between failures (MTBF) of 100,000 hours.

Professional Knowledge

Circuits, e.g.:

Power supplies (low and high voltage):

Rectifier, LC, series, shunt regulating, switch-mode, voltage, multipliers, charge pumps, UPS, solar.

Transient voltage suppression networks:

RC snubbers, Zeners, metal oxide varistors, gaseous discharge components.

Noise suppression networks:

Extraction, by Lock-in and signal averaging methods, of faint signals deeply buried in thermal noise. Clippers (bias), RLC and ferrites, EMI and RFI shields and filters.

Amplifiers:

Lock-in, small signal, operational, instrumentation, voltage, current and power.

Filters:

Passive, active (Bessel, Butterworth, Chebyshev), switched-capacitor, equalizers, digital-phase.

Frequency and waveform:

Waveform synthesizers, pulse generators, monostable, astable, Schmidt triggers, integrators, differentiators, wave shape converters (e.g., square to sine).

Logic and combinatory logic (TTL, CMOS, HCMOS):

Gates, FPGA, PLD, GAL, PAL, flip flops (D, RS, JK, T), counters (divide by n), shift registers, buffers, multiplexers, decoders/drivers, RS232, A/D, D/A, memories (RAM, ROM, FLASH), PCMCIA controllers, uP 8086/88, 386, 486, 68302, etc., microcontrollers.

Telephone switching networks:

Step-by-step, voice and video carriers, alarm circuits.

Power plants:

DC Generators, inverters and converters, lead-acid and Ni-Cd batteries float circuits, control panels (meters, switches and fuses to 10 kiloamperes).

Components, e.g.:

Photonics:

PIN diodes, avalanche photodiodes (APDs), optocouplers (diode-diode, diode-TRIAC, diode-phototransistors), fiber optic, photovoltaic cells and photocells (e.g., InSb, MCT), Fresnel lenses, prisms, optical filters, Blackbody emitters, optical transmission materials, IR mirrors.

Semiconductors:

Transistors (bipolar and FETs of all types): Small signal and power. Diodes: Switching, rectifiers, Zeners, current regulators, LEDs (visible and IR), four layers and trigger (PUT, UJT, SCS, DIAC, UBS, SBS, SCR, TRIAC).

ICs and peripheral components:

Laboratory voltage regulators, voltage and current references, crystal oscillators, Hall effect sensors, temperature sensors, thermistors, thermocouples, thermoelectric heat pumps (Pelletier effect), heat sinks, displays (LCD and LED).

Electro-mechanical:

Reed relays and switches polarized relays, telephone type relays, contactors, circuit breakers, manual and electric power switches, and electric rotary switches. Magnetic circuit pole pieces.

Transformers (low and high frequency):

Step-up, step-down, push-pull, flyback, current.

Vacuum tubes:

Vidicon, plumbicon, photomultiplier, CRT, laser. Cathodes: Field emission, thermionic emission, photoemission, Spindt.

High Voltage:

Pole pieces, capacitors (ceramic and oil), rectifiers, insulators.

Vacuum:

Flanges, couplings, pumps, valves, motion feedthroughs, electrical feedthroughs, traps and filters, vacuum fluids and greases, gauges, Helium leak detectors.

Scientific Equipment and Instrumentation, e.g.:

- Hewlett-Packard 3070/78 In-Circuit-Test
- Test jigs
- Spectrum analyzers
- Optical time domain reflectometers
- Laboratory standards (voltage, resistance, and magnetic flux)
- Waveform and frequency generators
- Frequency counters
- LCR meters
- Oscilloscopes (analog and digital storage) and cameras
- Semiconductor curve tracers
- Distortion analyzers
- Recorders (X-Y and strip chart)
- Power supplies (low and high voltage)
- High voltage probes
- Analyzers for rechargeable batteries (Lead-acid and Ni-Cd)
- Magnetometers
- Laboratory references

Computers and IT, e.g.:

PC Platforms: IBM PC/AT and compatibles, DOS, Windows. Some knowledge of LINUX.

Software:

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| Imaging: | PhotoShop, Paint Shop Pro, Acrobat Distiller, VISIO, PowerPoint, etc. |
| Word and Text Processing: | FrameMaker, RoboHelp, MS-Word, WordPerfect, etc. |
| Software Development: | Borland's Assembler, Pascal, C, C++, C++Builder, etc. |
| Design and Engineering: | ORCAD, VIEWlogic, PADS, Protel, Hyperlynx, Electronics Workbench, Siemens' Ferrite Magnetic Design Tool, etc. |
| Relational Databases: | Excel, Quattro Pro, Origin. Access, etc. |

Technical Knowledge: To component and engineering level.

Professional Education

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| 1992 to 1995 | CONCORDIA UNIVERSITY Studied towards a Bachelor of Electrical and Computer Engineering. |
| 1991 to 1992 | COLLEGE AHUNTSIC Intensive 18 months non-stop program, leading to successful completion of a C.E.C. in General Electrotechnology. Developed a structured Assembly language program capable of simulating logic ICs, utilizing solely logic operators such as AND, OR, NOT. |

Languages: French, English and Spanish, some knowledge of Portuguese.

Memberships: Society for Technical Communication
Institute for Interconnecting and Packaging of Electronic Circuits

Other Accomplishments

Established a technical service enterprise in Argentina where I lived during three years.

Initiated an improvement program of Bell Canada's telecommunication equipment, which resulted in a major improvement of its telecommunication services' quality. I worked for Bell Canada during ten years.

I practice several sports and I am in excellent health.